

Summer Student Research Program Project Description

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PROJECT TITLE (200 Characters max):

Symptomatic Cholelithiasis – An Intervention

HYPOTHESIS:

We hypothesize that we can improve receipt of standard of care of patients with symptomatic cholelithiasis

PROJECT DESCRIPTION (Include design, methodology, data collection, techniques, data analysis to be employed and evaluation and interpretation methodology)

Gallstones are common: approximately 10-15% of all adults have them. While many do not develop symptoms from gallstones, 2-5% of people per year do become symptomatic, a condition called symptomatic cholelithiasis or biliary colic (Blumgart, Altieri). Once symptoms occur, cholecystectomy is typically recommended, taking into account patient factors and preferences (Altieri). Patients often present to the Emergency Department (ED) with symptomatic cholelithiasis. Prior studies have shown that many of these patients do not receive standard of care (Dimou, Williams, Altieri, Bingener). We aim to develop an intervention to improve receipt of standard of care for patients with symptomatic cholelithiasis based on our prior research.

References:

Blumgart's Surgery of the Liver, Biliary Tract, and Pancreas. 6th Edition. Editors: Jarnagin WR, Allen PJ, Chapman WC, D'Angelica MI, DeMatteo RP, Do RKG, Vauthey JN.

Bingener J, et. al. Success of Elective Cholecystectomy Treatment Plans After ED Visit. *J Surg Res.* 2015 January; 193(1):95-101.

Altieri MS, et. al. What happens to biliary colic patients in New York State? 10-year follow-up from emergency department visits. *Surg Endosc* (201) 32:2058-2066.

Williams TP, et. al. Hospital readmission following emergency room visit for cholelithiasis. *J Surg Res.* 2015 August; 197(2):318-323.

Dimou FM, et. al. Trends in follow-up of patients presenting to the emergency department with symptomatic cholelithiasis. *J Am Coll Surg.* 2016 April; 222(4): 377-384.

SPONSOR'S MOST RECENT PUBLICATIONS RELEVANT TO THIS RESEARCH :

1. **Narula N**, Curran T, Nagle D. Return To The Hospital In Limited English Proficiency Patients After Inpatient Colorectal Surgery. *World Journal of Colorectal Surgery.* Volume 6, Issue 1, Article 1. Available at: <http://services.bepress.com/wjcs/vol6/iss1/art1>. 2016.
2. Ismael HN, Cox S, Cooper A, **Narula N**, Aloia T. The morbidity and mortality of hepaticojejunostomies for complex bile duct injuries: a multi-institutional analysis of risk factors and outcomes using NSQIP. *HPB.* Volume 19(4):352-358. Epub 2017.
3. Kim BJ, Day RW, Davis CH, **Narula N**, Kroll MH, Tzeng CWD, Aloia TA. Extended pharmacologic thromboprophylaxis in oncologic liver surgery is safe and effective. *Journal of Thrombosis and Haemostasis.* Volume 15(11):2158-64. Epub 2017.
4. **Narula N**, Kim BJ, Davis CH, Dewhurst WL, Samp LA, and Aloia TA. A Proactive Outreach Intervention that Reduces Readmission after Hepatectomy. *Surgery.* 2018. Volume 163(4):703-708. Epub 2018.
5. Kim BJ, Prakash L, **Narula N**, Davis CH, Kim MP, Aloia TA, Vauthey JN, Lee JE, Katz MH,

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- Tzeng CW. Contemporary Analysis of Complications Associated with Biliary Stents During Neoadjuvant Therapy for Pancreatic Adenocarcinoma. *HPB*. Volume 21(6): 662-668. Epub 2018 December 3.
6. Lillemoe HA, Marcus RK, Kim BJ, **Narula N**, Davis CH, Aloia TA. Detours on the Road to Recovery: What Factors Delay Readiness to Return to Intended Oncology Therapy (RIOT) After Liver Resection for Malignancy? *Journal of Gastrointestinal Surgery*. Volume 23(12):2362-2371. Epub 2019 February 26.
 7. Lillemoe HA, Marcus RK, Day RW, Kim BJ, **Narula N**, Davis CH, Gottumukkala V, Aloia TA. Enhanced recovery in liver surgery decreases postoperative outpatient use of opioids. *Surgery*. Volume 166(1):22-27. E-pub 2019 May 15.
 8. **Narula N**, Lillemoe HA, Caudle A, Chemaly RF, Anderson J, Segal C, Porter C, Swisher S, Levenback C, and Aloia T. Postoperative urinary tract infection quality assessment and improvement: The S.T.O.P. UTI program and its impact on hospital wide UTI rates. *The Joint Commission on Quality and Patient Safety*. Volume 45(10):686-693. E-pub 2019 July 29.
 9. Lillemoe HA, Markus RK, Kim BJ, **Narula N**, Davis CH, Shi Q, Wang XS, Aloia TA. Severe preoperative symptoms delay readiness to return to intended oncologic therapy (RIOT) after liver resection. *Annals Surgical Oncology*. Volume 26(13):4548-4555. E-pub 2019 August 14.
 10. Robinson K, Hersey S, **Narula N**. Small bowel sigmoid colon fistula resulting from diverticulitis causing an internal hernia. *Journal of Gastrointestinal Surgery*. Volume 24(11): 2688-2689. E-pub 2020 April 22. Misra A, Cook CH, Cataldo TE, **Narula N**. Colon Resection with End Colostomy in a Patient with a History of Imperforate Anus. *The American Surgeon*. E-pub 4 November 2020.
 11. **Narula N**, Tsikis S, Jinadasa SP, Parsons CS, Cook CH, Butt B, Odom, SR. The Effect of Anticoagulation and Antiplatelet Use in Trauma Patients on Mortality and Length of Stay. *The American Surgeon*. Volume 88(6): 1137-1145. E-pub 1 February 2021.
 12. Tsikis S, Yin SH, Odom SR, **Narula N**. Intraoperative Cholangiography: A Stepping Stone to Streamlining the Treatment of Choledocholithiasis. *Surgical Endoscopy*. Volume 36(7):4885-4892. E-pub November 1, 2021.
 13. **Narula N**, Gibbs KE, Kong F, Mukherjee I. Appendiceal Intussusception, Diverticula, and Fecalith Associated With Appendicitis. *The American Surgeon*. E-pub September 9, 2022.
 14. Ore AS*, Liu BS*, Chen HW, Kent TS, Parsons CS, **Narula N**. General surgery Trainee Cases Over Time: Postgraduate Year Matters. *The American Surgeon*. E-pub December 23, 2022.
- *These authors contributed equally to this work.

THIS PROJECT IS: **Clinical** **Laboratory** **Behavioral** **Other**

THIS PROJECT IS CANCER-RELATED

Please explain Cancer relevance

N/A

THIS PROJECT IS HEART, LUNG & BLOOD- RELATED

Please explain Heart, Lung, Blood relevance

N/A

THIS PROJECT INVOLVE RADIOISOTOPES?

No – N/A

THIS PROJECT INVOLVES THE USE OF ANIMALS

PENDING

APPROVED

IACUC PROTOCOL #

No- N/A

THIS PROJECT INVOLVES THE USE OF HUMAN SUBJECTS?

PENDING

APPROVED

IRB PROTOCOL # M

Yes – to be submitted

THIS PROJECT IS SUITABLE FOR:

Summer Student Research Program

Project Description

UNDERGRADUATE STUDENTS
SOPHMORES

ENTERING FRESHMAN
ALL STUDENTS

Medical students

THIS PROJECT IS WORK-STUDY: **Yes** **or** **No**

THIS PROJECT WILL BE POSTED DURING ACADEMIC YEAR
FOR INTERESTED VOLUNTEERS: **Yes** **or** **No**

WHAT WILL THE STUDENT LEARN FROM THIS EXPERIENCE?

The student will learn about conducting a literature search, designing a clinical study, collecting data, and research methodology. The student may also participate in writing an abstract or a manuscript and learn these skill sets. The goal is to have the project presented at a regional or national meeting and published in a peer-reviewed journal.