Summer Student Research Program
Project Description

FACULTY SPONSOR’S NAME AND DEGREE: Dr. Aziz M. Merchant, MD
PHONE: (973) 972 – 0072
DEPARTMENT AND INTERNAL MAILING ADDRESS: 185 South Orange Avenue, MSB G530, Newark, NJ 07103, Department of Surgery.
E-MAIL: aziz.merchant@rutgers.edu
PROJECT TITLE (200 Characters max):

Surgical Outcomes Analysis Using Large Administrative Datasets: The Nationwide Inpatient Sample and National Surgical Quality Improvement Program

HYPOTHESIS:
Large datasets can allow analysis of surgical disease outcomes while recognizing important contributing factors such as healthcare cost, healthcare disparities, socioeconomic factors, other environmental factors, and medical co-morbidities.

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

Study Objectives:

1. Describe the prevalence and incidence of certain surgical disease processes in the United States, such as gallbladder, hernia, appendicitis, diverticulitis, and other surgical emergencies
2. Recognize important patient and environmental factors in surgical disease outcomes.

Methods:

1. Discharge data from the Nationwide Inpatient Sample, the largest US all-payer inpatient care database will analyzed for these diseases between 1988 to 2010 in patients > 18 years old.
2. Clinical, risk-adjusted and benchmarked data from the National Surgical Quality Improvement Program Database may also be used.
3. Patient and disease characteristics including prevalence, age, sex, race, household income, and geographic location will be analyzed studied to determine correlations with disease prevalence.
4. Focus will be on the relationship of outcomes of care and prevalence to healthcare disparities in race, gender, and socioeconomic status.
5. Statistical analysis will be done in conjunction with faculty in biostatistics within the Department of Surgery

SPONSOR’S MOST RECENT PUBLICATIONS RELEVANT TO THIS RESEARCH:

Manuscript Publications (Students and Residents in highlight)


Summer Student Research Program
Project Description


Abstract/Presentations

7. Integrative Health Symposium, Rutgers Biomedical and Health Sciences, Newark NJ May 2015. The Association of Insurance Status with Complicated Inguinal Hernia Presentation.


IS THIS PROJECT SUPPORTED BY EXTRAMURAL FUNDS?
Yes ☐ or No ☒
(IF YES, PLEASE SUPPLY THE GRANTING AGENCY’S NAME)

THIS PROJECT IS: ☒Clinical ☐Laboratory ☐Behavioral ☐Other

THIS PROJECT IS CANCER-RELATED ☒
Please explain Cancer relevance
Summer Student Research Program

Project Description

THIS PROJECT IS HEART, LUNG & BLOOD-RELATED □
Please explain Heart, Lung, Blood relevance

THIS PROJECT EMPLOYS RADIOISOTOPES □

THIS PROJECT INVOLVES THE USE OF ANIMALS □
PENDING □ APPROVED □ IACUC PROTOCOL #

THIS PROJECT INVOLVES THE USE OF HUMAN SUBJECTS □
PENDING □ APPROVED □ IRB PROTOCOL # M

THIS PROJECT IS SUITABLE FOR:
UNDERGRADUATE STUDENTS □ ENTERING FRESHMAN □
SOPHOMORES □ ALL 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 overall goals of the Research Program are to:

1. Allow motivated medical students of any level to participate in mentored research projects for a minimum of 8-10 weeks, or even longer as desired by the student, during medical school
2. Introduce/enhance medical students' understanding of clinical research principles as it applies to clinical data, health disparities, and surgical outcomes
3. Provide a strong foundation in the ethical conduct of research and understanding of the Institutional Review Board (IRB) process
4. Strengthen skills in critical evaluation of data and reinforce the concept of evidence-based medicine
5. Broaden medical students knowledge of the role and relevance of research to clinical medicine
6. Develop basic skills of oral and written presentation, poster presentation, and manuscript preparation and submission