

## **TexMed 2017 Quality Research Abstract**

Please complete all of the following sections and include supporting charts and graphs in this document. Submit a total of two documents - this document and the Biographical Data and Disclosure Form to [posters@texmed.org](mailto:posters@texmed.org) by midnight March 17, 2017.

### **Description and Selection Criteria**

- Applicants should demonstrate an understanding of systematic investigation through research development, testing and evaluation designed to develop or contribute to generalizable knowledge. Judges will use the scoring described in this matrix to identify projects to be presented at the conference, as well as, projects to be considered for the awards.
- The focus for Quality Research abstracts is any project that is conducted with an intent to answer a research question or test a hypothesis related to quality improvement (QI). It is also intended to develop or contribute to generalizable knowledge. Projects in Quality Research need to have approval from an Institutional Review Board or have a formal letter of exemption. Traditional QI activities, on the other hand, cover the gamut of projects that are:
  - aimed at improving local systems of care, or improving the performance of institutional practice;
  - designed to bring about immediate improvements in health care delivery; or
  - intended to compare a program/process/system to an established set of standards such as standard of care, recommended practice guidelines, or other benchmarks.

If you have a question about whether your project is Quality Research or a QI project, please contact us.

- These submissions should provide general information related to the one of the following categories: patient safety, patient centered care, equity, timeliness, efficiency, or effectiveness.
- Maximum points delineated with a brief explanation of the content that should be included under each section. Applicants may describe the problem and results in narrative or graphic format.

**PROJECT NAME: A Review of SSRIs and GI bleeding in a Community Hospital**

**Institution or Practice Name: University of Texas Rio Grande Valley in Harlingen, TX**

**Setting of Care: University-affiliated community hospital**

**Primary Author: Jocelyn Juarez, MD**

**Secondary Author: James Hanley, MD & Laura Garcia, MD**

**Other Members of Project Team: N/A**

**Is the Primary Author, Secondary Author or Member of Project Team a TMA member (required)?**

Yes  No

Please provide name(s):

**Project Category:** (Choose all categories)

- Patient Safety       Patient Centered Care       Timeliness       Enhanced Perioperative Recovery  
 Efficiency       Effectiveness       Equity       Disaster Medicine & Emergency Preparedness

For this poster session, TMA is looking for research projects that demonstrate the six aspects of Quality Care as defined by the Institute of Medicine.

- Safe - avoids injuries to patients from care that is intended to help them
- Timely - reduces waits and delays for both those who receive care and those who give care
- Effective - based on scientific knowledge, extended to all likely to benefit, while avoiding underuse and overuse
- Equitable - provides consistent quality, without regard to personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status
- Efficient - avoids waste, including waste of equipment, supplies, ideas, and energy
- Patient centered - respects and responds to individual patient preferences, needs, and values, ensuring that patient values guide all clinical decisions

**Introduction (15 points max):** Describe 1) where the work was completed; 2) what faculty/staff/patient groups were involved, and 3) sufficient background information provided to establish the significance of the problem.

Selective serotonin reuptake inhibitors (SSRIs) are frequently prescribed for depression and a variety of psychiatric and medical conditions. While they have a generally well-known side effect profile, SSRIs have recently been found to be associated with an increased risk in GI and possibly CNS bleed. The mechanism for this bleeding tendency is thought to be related to a decrease in platelet serotonin leading to impaired platelet aggregation and hemostasis. Recent studies have highlighted that combination of SSRIs and nonsteroidal anti-inflammatory drugs (NSAIDs) significantly potentiates the risk of bleeding and should be taken into consideration when prescribing SSRIs. We have observed that many patients admitted with gastrointestinal bleeding (GIB) are often on SSRIs. It is unclear if this bleeding risk of SSRIs is appreciated by the treating physicians. This project focused on patients admitted to our hospital with a diagnosis of GIB and taking SSRIs.

**Hypothesis (15 points max):** State the pertinent research or change hypothesis. Using if/then format, describe the 1) assumption; 2) condition; and 3) prediction(s).

If SSRIs are an under-recognized risk factor of GIB, then their potential role as a risk factor for bleeding will not be documented and the SSRI will be continued on discharge.

**Methods (25 points max):** Describe the specific methods, resources, procedures, models and/or programs used to study and test the subject of the investigation. Note charts, graphs and tables here and send as addendum with abstract form.

This is a retrospective study of 144 patients with a diagnosis of GIB with SSRI use, admitted to a university affiliated community hospital. There were 102 patients who met inclusion criteria and were analyzed for SSRI and NSAID use, type of GIB, and rate of discontinuation of these medications. Secondary outcomes included reviewing documentation for indications of SSRI use. Discharge medication reconciliation was used to document the rate of discontinuation. The diagnosis of GIB was further investigated for details of underlying risk factors independent of medications.

Inclusion criteria included patients aged 20-100 years old who presented to our institution from 09/2014 to 09/2016 with a diagnosis of GIB and SSRI use. Exclusion criteria included patients younger than 20 years old

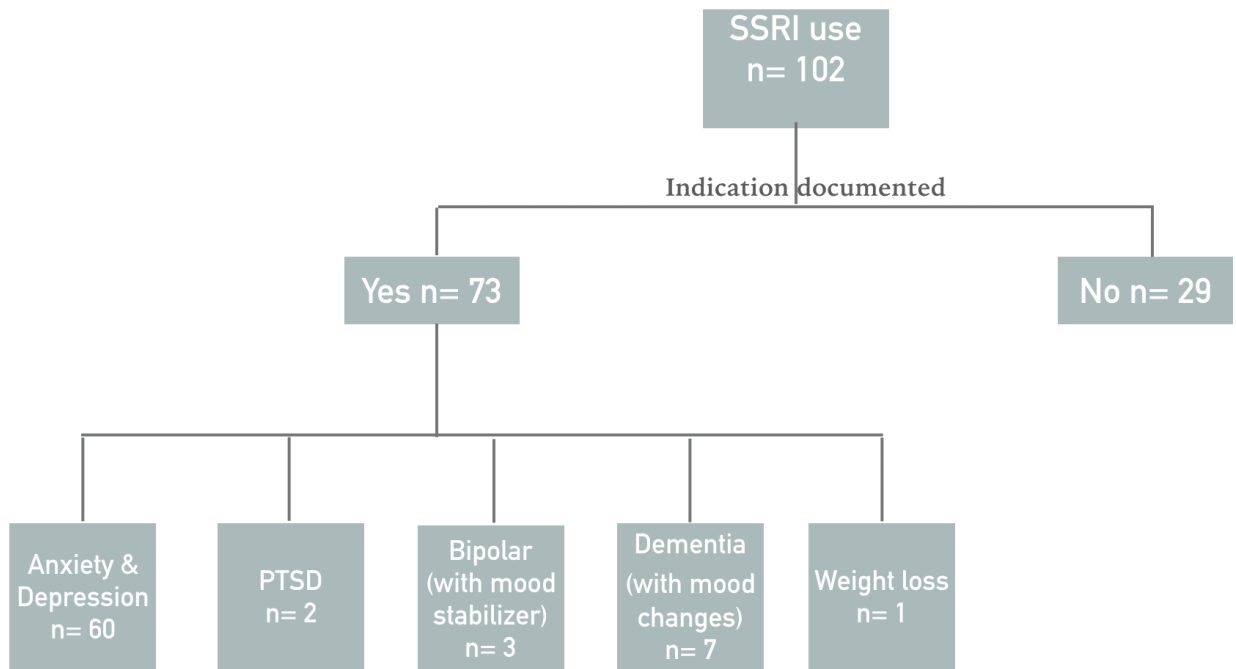
or patients with no evidence of GIB based on stable hemoglobin or negative FOBT as well as patients who were not on an SSRI as a home medication.

**Results (25 points max):** *Specifically explain what was discovered, accomplished, collected and/or produced; supports hypothesis and conclusions with adequate evidence and includes quantitative data. Note charts, graphs and tables here and send as addendum with abstract form.*

Analysis showed that 60.5% of patients had no prior history of GI bleed and 39.5% had a previous bleed. Only 58.8% of the patients had a documented reason for SSRI use. Of the 102 patients, 44 required a blood transfusion during hospitalization. Although the groups for first and second episodes of GIB were different, they had a similar percentage of continuation of SSRIs. In 97% of the patients, there was no documentation of SSRIs as risk factor for GIB, either by the primary team or the consulting gastroenterologist. There were 44 patients who were on NSAIDs on admission and they were all discontinued on discharge.

**Conclusions (20 points max):** *Provide a succinct interpretation of the results and evaluate what the results mean to the investigation, OR evaluate the relevance or uniqueness of what was accomplished in the immediate context of the project's purpose and describe how the investigation fits within a larger field.*

As noted, in only 58.8% of the patients was the indication documented but SSRIs were consistently continued. The risk of bleeding on SSRIs was under-appreciated by both the primary team and the gastrointestinal consultants. This resulted in no efforts to reduce the risk associated with SSRIs use and they were continued on discharge. This is in contrast to NSAID use which was identified as a risk factor for bleeding and all NSAIDs were discontinued on discharge. These findings demonstrate that there are several aspects when prescribing SSRIs that need to be addressed. First, there is a need for further education on the risk of bleeding associated with SSRIs. This education should be directed at both the initial prescriber and those that are likely to see the patient during a bleeding episode. The patient should also be advised of this risk. Second, when bleeding occurs while a patient is on an SSRI, there should be an effort to stop the medication. This will require an assessment of why the patient was prescribed the medication and whether there is a suitable substitute. SSRIs are increasingly found to have clinically important side effects and need to be utilized cautiously and discontinued if no longer indicated or if not effective.



	SSRI continued on discharge	NSAIDs continued on discharge
Yes	95	0
No	3	44
Discharge summary not done	3	0
No medication list on discharge summary	1	0

