



## Sample One Page Summary for the AGI Project

### Project Goals:

1. Identify all patients with aortic graft infection (AGI) at participating institutions including:
  - a. Isolated hemi-aortic graft limb infections subgroup
  - b. Aortic erosion/fistulae (AE/AF) subgroup
2. Collect and interpret AGI diagnostic factors, management options and outcomes
3. Develop clinical recommendations for AGI diagnosis and management
4. Define a new clinical entity, "*Tertiary aortic erosion or fistula* is an AE/AF in the setting of a prior endograft," to distinguish these from primary and secondary AE/AF.

**Patient Record Selection Criteria:** Patients aged 18 years or older with AGI diagnosed and/or treated between January 1<sup>st</sup>, 2000 and November 1<sup>st</sup>, 2016

**Methods:** A standardized data worksheet will be emailed to participating institutions to collect retrospective data from patient charts. Patients will be identified by ICD-10 diagnosis and CPT billing codes provided. The data collected will include:

- Demographics, i.e. age at index aortic surgery and at presentation of AGI
- Known risk factors, i.e. sepsis at time of AGI presentation
- Candidate risk factors, i.e. prior endoleak intervention, spinal osteophytes
- Short-term operative decisions, i.e. temporary endograft placement, NAIS, hemi-NAIS
- Long-term management decisions, i.e. antibiotic choice and duration
- Outcomes, i.e. mortality, patency and re-operation type

After de-identification the data will be submitted to a secure server, merged into a multi-institutional database and then collectively analyzed. The final clinical management recommendations will reflect data from all of the participating institutions.

### Anticipated Results:

1. Identification of Novel Risk Factors:
  - a. AE/AF incidence will increase during the study period and will be associated with prior aortic endograft (tertiary AE/AF) at a higher rate than previously appreciated in the literature due to increased endovascular utilization and follow-up duration
  - b. AE/AF will be associated with excessive endograft oversizing at proximal landing zone
  - c. AE/AF will be associated with spinal osteophytes at the proximal anastomosis
2. Operative Recommendations:
  - a. Temporary aortic balloon occlusion and temporary EVAR for AE/AF will be associated with improved 30-day survival
  - b. Definitive T/EVAR will yield higher infection rates and lower overall survival
  - c. Delayed bowel repair will improve survival after definitive EVAR for AE/AF
  - d. *In-situ* rifampin-soaked omentum-wrapped prosthetic grafts (ISRG) will have equivalent overall survival, limb salvage and patency comparable to autologous vein (NAIS) and cryopreserved allografts, however ISRG will have short operating times (and thus low in-hospital cost) comparable with axillo-bifemoral bypass.
3. Antibiotic Recommendations:
  - a. Antibiotics >6 months will be associated with lower re-infection rates and limb salvage