

NEWS FROM THE SCA/STS DATABASE SUB-COMMITTEE

Summary of Group Project or Activities – Posted June 2024

Name of Project or Activity	Description	Project Status (New, Ongoing, Complete, Near Completion, Long Term, Abandoned)
Echo Report	The Society of Thoracic Surgeons Adult Cardiac Surgery Database: Intraoperative Echocardiography Reporting	https://pubmed.ncbi.nlm.nih.gov/38365466/
PUF Funding Cycle 2024	PUF projects were submitted as part of the SCA sponsored funding program	The PUF submissions are currently under review by the STS Research Center. The expected completion date for this review process is April 2024. Subsequently, PIs of the approved proposals will be notified.
PUF Funding Cycle 2023	4 PUF project were selected for funding as part of the SCA sponsored funding program	All 4 projects are at different stages of completion of the data analysis. The preliminary findings will be presented as part of a scientific session at the SCA 2024 Meeting
STS Preoperative Beta Blocker Working Group	A 12-month “registry within the STS ACSD” is conducted to characterize perioperative beta-blocker administration	The study was started in January 2024, and current it is ongoing

Summary of Group Meetings – Posted June 2024

Group Meeting	Date	Action Items from Meeting
SCA/STS Database Sub-Committee Meeting	1/25/2024	<ol style="list-style-type: none"> 1. STS ACSD Updates 2. 2024 PUF Funding Cycle 3. Leadership transition
SCA/STS Dashboard Review	12/11/2023	Follow-up meeting of the meeting that took place on 8/1/2023
SCA/STS Database Sub-Committee Applications	11/17/2023	Application of new members were reviewed and discussed
SCA/STS Database Sub-Committee Meeting	10/15/2023	<ol style="list-style-type: none"> 4. STS ACSD Updates 5. Echo Progress Report: Update 6. 2024 PUF Funding Cycle 7. Leadership transition
PUF LOI Review Scores	10/3/2023	PUF LOIs were reviewed and discussed
PUF Proposals Follow Discussion	8/24/2023	A follow-up meeting to discuss the organizational aspect of the PUF 2024 funding cycle
PUF Letter of Intent Q&A Session	8/18/2023	SCA Members were invited to participate in Q&A session on how to successfully apply for PUF funding
SCA/STS Dashboard Review	8/1/2023	This is an ongoing collaboration between the SCA Database Sub-committee and the STS ACSD to create a Dashboard with a focus on reporting of anesthesia specific performance metrics that are derived from the STS ASCD.
SCA/STS Database Sub-Committee Meeting	5/6/2023	<ol style="list-style-type: none"> 8. STS ACSD Updates 9. Echo Progress Report: Update 10. 2023 PUF Funding Cycle: selected applications, feedback and opportunities for process improvement 11. 2024 PUF Funding Cycle

POSTED NOVEMBER 2023

Summary of Group Meeting 1: 6 May 2023

- Society of Thoracic Surgeons Adult Cardiac Surgery Database Updates
- Echo Progress Report: Update
- 2023 Participant User File (PUF) Funding Cycle: selected applications, feedback and opportunities for process improvement
- 2024 PUF Funding Cycle

Summary of Group Meeting 2 (if applicable)

A series of group meetings were conducted that were open to SCA/STS Database Subcommittee Members, QSV Members and all SCA members interested in learning more about the SCA/STS Participant User File (PUF) Funding Program

- Dates: August 4th, 11th, and 18th
- Summary of Discussion: The August 4th and 11th meetings were well attended. Members of the SCA/STS Database Subcommittee and delegated members of the Research Committee have been identified to help with reviewing the applications submitted in response to the PUF Funding Program.

COLLABORATION

- Internal: there is an ongoing collaboration between the SCA/STS Database Committee and QSV, and the CPI Committees and the Guidelines and Standards Committee.
- External: there is an ongoing collaboration with the STS Thoracic Quality Improvement Task Force and the STS Beta-Blocker Quality Improvement Task Force.

FUTURE PROJECTS

- Presentation of the 4 SCA funded PUF projects at the SCA 2024 Annual Meeting
- Coordination of the 2024 PUF funding cycle including selection of best proposal for a full submission, review and selection of winning proposals, and logistical management of the PUF funding program within the SCA/STS Database Committee and with the STS Research Committee.

POSTED JUNE 2023

Summary of Group Meeting 1: Date: 08/23/2022

- The PUF funding mechanism and its implementation was discussed with the SCA/STS Subcommittee members and delegated members of the SCA Research Committee.

Summary of Group Meeting 2:

- No Meeting 2 was held but during the STS PUF Application Review Process between October 2022 and January 2023 there was ongoing communication with STS/SCA Database Subcommittee members, Drs. Bruce Bollen and Jake Abernathy, and STS Research Center.

DESCRIPTION & GOALS

- 1) Roll out of the SCA sponsored PUF funding mechanism: completed
- 2) Management of the 1st application and funding cycle for the SCA Foundation sponsored PUF funding mechanism: completed. See here the 4 projects that were approved for SCA Foundation sponsored PUF

funding mechanism:

- a. Dr. Anne Cherry, Duke: "Training and Validation of Novel Cardiac Surgical Risk Models Incorporating Right Ventricular Function from the STS Adult Cardiac Surgery Database"
- b. Dr. Amanda Kleiman, UVA: "Multimodal analgesia and outcomes after cardiac surgery: a retrospective cohort study"
- c. Dr. Emily MacKay, UPenn: "Assessment of a Tree-Based, Machine Learning Algorithm to Optimize Intraoperative Transesophageal Echocardiography Allocation for Isolated Coronary Artery Bypass Graft Surgery - A Precision Medicine Application"
- d. Dr. Jacob Raphael, Thomas Jefferson University: "Perioperative Acetaminophen and Decreased Postoperative Acute Kidney Injury (AKI) After Cardiac Surgery"

COLLABORATION

- 1) *External*: STS Thoracic Quality Improvement (TQI) Committee. Drs. Bruce Bollen and Miklos Kertai are members of the STS TQI: ongoing
- 2) *Internal*: 1) SCA Research Committee: The Database and Research Committees collaborate on overseeing and managing the application, review and approval processes of the SCA funded PUF research funding mechanism: ongoing; 2) SCA Presidential Task Force for on Guidelines and Advisory Statement: Drs. Bruce Bollen and Miklos Kertai are active members of this Task Force: manuscript preparation and submission are completed

FUTURE PROJECTS

- 1) Creation of an echocardiography-based summary report based on frequency data from the STS Adult Cardiac Surgery Database and to be co-published in the Annals of Thoracic Surgery and Anesthesia & Analgesia. This project is led by Drs. Alina Nicoara, Bruce Bollen and Miklos Kertai: ongoing
- 2) The SCA/STS Database Subcommittee submitted a session proposal for SCA2024. The session will be focusing on i) how the STS ACSD can be used for registry based clinical research, and ii) the presentation of the 4 SCA Foundation sponsored PUF based research projects

POSTED NOVEMBER 2022

Summary of Group Meeting 1: 5/15/2022

- 1) acknowledged and thanked the contribution of the outgoing SCA/STS Database Subcommittee members; 2) welcome of new members; 3) discussed completed and ongoing projects for FY 2021-2022; 4) discussed the upcoming Participant User File (PUF) funding mechanism.

Summary of Group Meeting 2: 08/23/2022

- The PUF funding mechanism and its implementation was discussed with the SCA/STS Subcommittee members and delegated members of the SCA Research Committee.

DESCRIPTION & GOALS

- 3) Recruitment of new members to the SCA/STS Database Subcommittee: completed
- 4) Roll out of the SCA sponsored PUF funding mechanism: completed
- 5) Management of the 1st application and funding cycle for the SCA sponsored PUF funding mechanism: ongoing
- 6) Creating collaboration and obtaining funding for the joint STS TQI and SCA/STS Database Subcommittee project on preoperative beta-blocker use and postoperative atrial fibrillation

COLLABORATION

- 3) *External:* STS Thoracic Quality Improvement (TQI) Committee. Drs. Bruce Bollen and Miklos Kertai are members of the STS TQI. There is a funding approved for a joint research project for exploring potential factors responsible for the lack of beneficial effect of preoperative beta-blocker use for the prevention of postoperative atrial fibrillation after CABG surgery. STS will also contribute to the funding of this joint research project.
- 4) *Internal:* 1) SCA Research Committee: The Database and Research Committees collaborate on overseeing and managing the application, review and approval processes of the SCA funded PUF research funding mechanism; 2) SCA Presidential Task Force for on Guidelines and Advisory Statement: Drs. Bruce Bollen and Miklos Kertai are active members of this Task Force.

FUTURE PROJECTS

Creation of an echocardiography-based summary report based on frequency data from the STS Adult Cardiac Surgery Database and to be co-published in the Annals of Thoracic Surgery and Anesthesia & Analgesia. This project is led by Drs. Alina Nicoara and Miklos Kertai.

POSTED JUNE 2022

Summary of Group Meeting: October 10, 2021

This group meeting was combined with the fall QSL Committee Meeting due to logistical reasons. Summary of Discussion: i) future upgrade of the anesthesiology section of the STS ACSD; ii) SCA funding approval for up to 4/year research projects using the STS ACSD PUF research mechanism; iii) strengthen an ongoing collaboration with STS on quality initiatives for cardiac surgery patients; iv) develop a collaboration with the National Quality Forum; v) SCA 2021 planning for a session and a PBLD; vi) Update for the STS TQI Beta-blocker project to study an association between beta-blocker use and postoperative atrial fibrillation after CABG surgery

DESCRIPTION & GOALS

- Published an echocardiography summary report based on the STS ACSD in the Annals of Thoracic Surgery
- To help to create a Presidential Task Force with Dr. Shore-Lesserson with a focus on how to standardize guideline and advisory creations for SCA
- The SCA/STS Database Subcommittee will have several new members appointed – the plan is to involve all new members in the ongoing work and future objectives of the Database Subcommittee
- Creation, support and launch of the SCA sponsored PUF based funding mechanism

COLLABORATION

- Ongoing collaboration and participation in the recurring meetings of the STS Thoracic Surgery Quality Initiative Workforce.
- Ongoing collaboration with the SCA Neuroprotection Group (chair: Dr. Lombard) on developing a STS PUF Research Proposal on temperature management and neurological outcomes in the STS ACSD – a proposal has been submitted for approval to the STS Research Center.

- Finalizing the study with Dr. Raphael, chair of the SCA Blood Management Group, on his PUF based research proposal regarding intraoperative blood transfusion and postoperative thromboembolic complications.
- Completed a PUF project with Dr. Mazzeffi, Chair of the ECMO Working Group: intraoperative blood transfusion and postoperative hospital acquired septic complications, which is going to be published in Anesthesia & Analgesia.
- Ongoing work with Drs Bollen and Rhee on developing a quality leadership program for SCA Members
- Ongoing work with Dr. Bollen to develop and successfully implement the SCA sponsored PUF based funding mechanism
- STS TQI Beta-blocker project: a large-scale study to explore the association between preoperative beta-blocker use and postoperative atrial fibrillation after CABG surgery

FUTURE PROJECTS

- 2023 Upgrade of the STS ACSD Surgery and Anesthesiology will be starting in September 2022
- Discussion with STS ACSD Workforce how the data collection for the STS ACSD Anesthesiology Section of the Database could be automated in the future with regards to automated data capture for the echo variables

POSTED OCTOBER 2021

DESCRIPTION & GOALS

- The first SCA sponsored SCA/STS PUF study on dexmedetomidine and postoperative adverse outcomes was published in the Annals of Thoracic Surgery.
- SCA 2021 Virtual Meeting: helped to organize and several members of Subcommittee presented as part of a session on quality and databases.
- SCA 2021 Virtual Meeting: a PBLD on the SCA/STS ACSD Sections was organized and presented.
- Completed and submitted an echocardiography summary report based on the STS ACSD: currently it is under review by the Annals of Thoracic Surgery. We believe this document illustrates the need to enhance the reporting rate of important echo variables in the STS ACSD and the Anesthesiology subsection. This may provide an opportunity for the SCA, STS and ASE to collaborate to develop automatic data capture of echo data to the STS Database.
- Proposed a mechanism for SCA to fund up to 4/year research proposals using the STS ACSD PUF research mechanism. The proposal was accepted, and we are currently working on developing of its framework.

COLLABORATION

- STS Advances in Quality and Outcomes: planning a session on the STS ACSD Anesthesiology section for their annual meeting in October 2021.
- Ongoing collaboration and participation in the recurring meetings of the STS Thoracic Surgery Quality Initiative Workforce.
- Started a collaboration with the SCA Neuroprotection Group (chair: Dr. Lombard) on developing an STS PUF Research Proposal on temperature management and neurological outcomes in the STS ACSD.
- Assisting the chair of the SCA Neuroprotection Group in creating a systematic review article on temperature management in cardiac surgery.
- Working with Dr. Raphael, chair of the SCA Blood Management Group, on his PUF based research proposal regarding intraoperative blood transfusion and postoperative thromboembolic complications.
- Dr. Kertai has begun serving on the NQF Measure Application Partnership (MAP) for surgery this year. Has participated in NQB MAP-Surgery Committee work to approve submitted performance and outcome quality

measures.

- Dr. Kertai's work on the NQF has provided insight into the NQF's future goal of requiring automatic electronic capture of data for their quality measures. This may require important collaboration between the SCA, ASA, STS, ASE and other societies in the future.
- Coordinating with the National Quality Forum to develop educational session/webcast to educate SCA members on the NQF and how the SCA can interact with the NQF.

FUTURE PROJECTS

- 2023 Upgrade of the STS ACSD Surgery and Anesthesiology will be starting in September 2021.
- Discussion with STS ACSD Workforce how the data collection for the STS ACSD Anesthesiology Section of the Database could be automated in the future.
- National Quality Forum: planning for future collaboration between SCA and STS in workshops and townhall meetings with a focus on quality and value-added care for cardiac surgery patients.
- Working with Drs. Abernathy and Bollen to create a future recurring joint SCA/STS session as part of the STS Annual Meeting.
- Working with Drs Bollen and Rhee on developing a quality leadership program for SCA Members.

POSTED JUNE 2021

Summary of achievements for 2020-2021:

1. Upgrade of the Adult Cardiac Anesthesiology Section of the STS ACSD completed. The new upgraded version came into effect on July 1, 2020.
2. Organized and co-moderated an SCA/STS Webinar with 80 participants on August 19, 2020.
3. A summary report was co-published in the Annals of Thoracic Surgery, A&A, and JCVA, September 2020.
4. Facilitated the submission of 3 research proposals to the STS Research Committee: one project has a manuscript accepted; and two projects approved by STS and working on the Data Use Agreement. All these projects are funded through the SCA Committee Funding Initiative.
5. Created a learning module for the annual Advances in Quality and Outcomes Data Manages Virtual Meeting, September 29-October 2, 2020.
6. Webinar presented to all SCA members to review the recent upgrade of the STS ACSD, and IQVIOA Dashboard, October 22, 2020.
7. STS-SCA ACSD Contract renewal was finalized and signed in December 2020.

Noted below are potential future projects:

- A 60 Minute Panel for the SCA 2021 Annual Meeting on "Quality databases: How can I use the STS/SCA Database for QI/Research", April 27, 2021.
- A PBLD for the 2021 SCA Annual Meeting titled, "SCA/STS Database Reporting & Dashboard: Adding Value to Perioperative Care".
- An STS/SCA summary report on echocardiography.
- A planned 60 Minute Panel for the SCA 2022 Annual Meeting on "Quality in Cardiac Surgery and Databases" submitted for approval to the SCA Annual Meeting Committee.
- September 2021, the process of the next STS ACSD Upgrade will launch, and we will actively facilitate the process of updating the STS Adult Cardiac Anesthesiology Section.

