Conducting Research with SART Data: Setting the Stage for Success
Learning Objectives

- What is SART CORS?
- What kind of research can I do?
- How do I submit a research proposal?
What is SART CORS?

- SART Clinic Outcome Reporting System
- SART members are encouraged to use the national SART CORS database to ask powerful retrospective research questions
Your Research Question

- You may have a question or hypothesis you’d like to test using SART CORS data
- Collaboration is strongly encouraged in order to utilize available resources for statisticians, IRB approval, experience working with SART CORS datasets
- Network and connect with SART CORS researchers
Publications from SART CORS

- For a current list of publications, go to the members only section of [www.sart.org](http://www.sart.org)
- Over 180 publications have resulted from datasets generated from SART CORS

**A few highlights:**

- The use of elective single embryo transfer since the advent of SART reporting has recently been published
- Powerful linkage studies between SART and state birth registries have provided important birth outcome data from IVF
- Prediction models come from SART CORS
The SART Research Portal is available to SART members who are interested in:

- Requesting a dataset from SART CORS for research
- Submitting a survey to SART members for research
- Requesting an exemption from reporting IVF cycles to SART CORS
How Do I Submit a Research Proposal? An Overview

Investigator

Dataset Request

SART Research Committee

Committee approval

RedShift Performs Feasibility Review

IRB approval letter
Signed Certificates of Confidentiality (as applicable)

RedShift Creates Dataset/Survey/Exemption Code

Investigator Analyzes Data, Drafts Manuscript

SART Research Committee Chair

Approves Manuscript

Investigator Submits Manuscript for Publication
The Portal is Seasonal

- New Requests: November 15-February 5
- Committee Review: February 5-April 15
- Redshift Review: April 15-May 31
- Dataset Release: estimated June-September

Outside submission window, investigators can submit proposals for review and approval as long as they can pay costs (e.g. from grants)
What Can Be Approved Annually

- Approve \( \leq 10 \) proposals per year where SART supports Redshift programming costs including special requests
- Surveys separate
  - Surveys about IVF practice patterns (IVF clinics) are appropriate for SART
  - Surveys about individual practice patterns (board-certified REIs) should be submitted to SREI
Accessing the SART Research Portal

The research portal is accessed through each SART program’s web-based sartcorsonline.com account under the RESEARCH tab on the home screen toolbar.

The principal investigator (PI) must be a SART member and have their own login to their program’s SART CORS account.
All Co-Investigators Must be Named in the Proposal

The SART CORS data manager for each SART program gives access to the PI and all co-investigators as applicable. To add a user to SART CORS, click User List on the home screen toolbar.
Giving a User Research Rights

Click User List on the home screen toolbar, create a new user, enter details, check ‘Research Applicant Read/Write’ and save. Now the portal is visible to that user.
Creating a Research Identifier

- Once research access is granted, an External Unique Research Identifier is created for each investigator, which must be included when initiating a proposal in the research portal.

- Co-investigators from different programs can be included in a research proposal as long as they have their own External Unique Research Identifier.
What Data Should I Request?

- First consult the list of fields that are collected to determine if the database would be able to answer your research question. You can find a list of fields with a description of what is included in each field at www.sartcorsonline.com. Click the ‘Help’ link at the top of any screen except the Home Page.

- A single year will contain information for over 125,000 cycles with many available fields for each of the cycles. Please request only fields that are justified by your project (i.e. a dataset containing the minimum number of data fields for the minimum number of years to adequately conduct the research).
Starting a New Request

In the research portal, click 'Create New Research Request: General'.
Completing a New Request

Follow instructions and complete information requested under each tab: General, Details, Security, Field Selection.

The research proposal is not submitted to the research chair until the ‘Save & Submit to SART’ button is pressed.
Submitting Your Proposal

Your request gets a Research Protocol Number and it will be in your portal dashboard. The status indicators at the top of your request will help you understand where your request is in the pipeline.
Tips for Enhancing Your Proposal

- Use the SART Query Engine on your own clinic data, to test usage & understanding of SART CORS
- Consult SART Data Dictionary for definitions of fields, to ensure you ask for exactly what you want. Located on Research Portal Dashboard Home Page
- Create shell tables as part of proposal and upload them under the documentation tab
- Include a biostatistician as a co-investigator (mandatory)
SART requires researchers to work closely with a statistician to correctly handle missing data (which is very frequent for some fields) and to choose appropriate methods for manipulating the data (importing from Access, exploring and categorizing, modeling and analyzing, and designing tables)
The SART Research Committee will review the proposal and provide comments back to you. In consultation with Redshift, the Research Committee will determine if the requested data can be released. Proposals may be sent back to the investigators for revisions.

All communication with the investigators is done through the COMMUNICATION tab in the portal.
Review Process

- The committee reviews each proposal
- It is a highly structured process with a scoring tool of objective criteria that will be scored by reviewers
- The scoring process is based on the ASRM abstract scoring system
Basis of Scoring Tool

**Originality of Hypothesis**
- 0 = None
- 3 = many other well-designed studies
- 5 = a modest number of other similar studies
- 7 = few similar studies
- 10 = unique

**Plan of Data Analysis**
- 0 = inadequate analysis, hypothesis not supported by plan of analysis
- 5 = deficient analysis, hypothesis partially related to plan of analysis
- 7 = appropriate analysis, SART CORS data requested appropriate for addressing hypothesis, hypothesis supported by plan of analysis, biostatistician listed
- 10 = appropriate analysis, SART CORS data requested appropriate for addressing hypothesis, hypothesis supported by plan of analysis, biostatistician listed, shell tables included

**Significance**
- 0 = little if any significance, does not advance the field
- 5 = modest contribution to the field; advance the field modestly
- 10 = important contribution to the field

**Study Design**
- 0-3 = retrospective, moderately novel question, low impact
- 4-6 = retrospective, novel question, impactful
- 7-8 = simulated RCT, machine learning, prediction models, appropriate statistical modeling, impactful
- 9-10 = linkage study, appropriate statistical modeling, impactful
Supporting Documentation

Before the dataset can be released, the following must be uploaded into the portal under the DOCUMENTATION tab:

- A letter from your IRB documenting that the project has been reviewed and approved
- Signed Certificates of Confidentiality for each person involved with the project. The Certificate of Confidentiality is available as a link under the DOCUMENTATION tab within the portal and online in the members-only section of the sart.org website.
Getting Your SART CORS Dataset

- Once the proposal is approved by the committee and the documentation of IRB approval and Certificates of Confidentiality are received, the project will be listed on the queue for obtaining a dataset.

- Data will be provided as a downloadable Access file under the DATA AND PUBLICATIONS tab within the research portal. The file is a series of columns with each cycle listed as a row and the requested fields listed as columns. Protected Health Information (PHI) such as names and dates cannot be released to any individuals outside of SART. SART also cannot release data from cycles which took place prior to 2004.
Before you submit your manuscript for peer review, email it to the Research Committee Chair for approval. Only manuscripts that present serious issues and are not appropriately reporting their findings will be sent to the Research Review committee.
Questions or Comments

Chair, SART Research Committee

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