

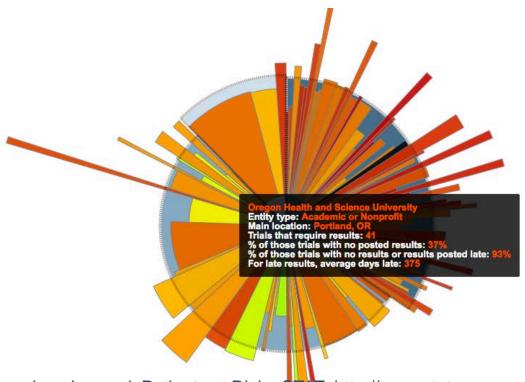
Outline

- Introduction
 - Why is this Needed?
 - Does my study require results?
 - Preparing for Results Entry
 - Broad Overview
- Modules
 - Participant Flow
 - Baseline Characteristics
 - Outcome Measures*
 - Adverse Events
- Getting Started with Results Entry
- ClinicalTrials.gov review process
- Overall Tips & FAQs
- Additional Resources

Why Is This Needed?

- Allows greater transparency in research
 - Provide a public record of basic study results in a standardized format
 - Promote the fulfillment of ethical obligations to participants and the overall contribution to medical knowledge
 - Reduces publication and outcome reporting biases
- It's the Law
 - Criminal and/or civil penalties assessed to responsible parties
 - \$10,000 for first event, \$10,000 per day its not corrected within 30 days
 - Notices of Non-compliance
 - Withholding of NIH grant funding

Why is This Needed? It's in the news..



2015 Piller - Law Ignored, Patients at Risk. STAT http://www.statnews.com/2015/12/13/clinical-trials-investigation/

Does My Study Require Results Entry?

- If study is an <u>Applicable Clinical Trial (ACT)</u>, and thus subject to FDAAA (FDA Amendments Act, Section 801), then <u>IT</u> DOES.
- ACTs are:
 - Controlled clinical investigations involving drugs or prospective studies of health outcomes involving drugs/devices that are subject to FDA regulation (includes IND/IDE)
 - Phase II, III, IV interventional initiated on/after 9/27/2007 or ongoing as of 12/26/2007.
 - Usually* excludes Phase I, Expanded Access studies, pediatric post-market device surveillance.
- *Rules are subject to change so keep checking back to these links:
 - http://grants.nih.gov/clinicaltrials_fdaaa/ACTs_under_FDAAA.ht
 m
 - https://www.clinicaltrials.gov/ct2/manage-recs/fdaaa
- *If unsure if your study is ACT, please ask: <u>register@ct.gov</u> or Knight Cancer: <u>ctrp-admin@ohsu.edu</u>}}



Preparing for Results Reporting

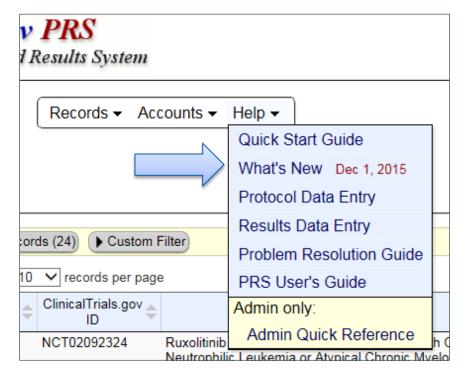
- Who enters results? You! But you can get help.
- Involve your Biostatisticians (ideally PI and Biostats should sign-off on final posting), or brush up on statistics.
- Plan Early! Ideally -start when you're writing your protocol, to make sure all key elements are reflected in the protocol as well as in your data collection instruments
- Be continuously thinking about your data & results throughout the conduct of your study and update your registration accordingly
- The more accurate, error-free, descriptive and clear your arms/outcomes are in the initial registration, the easier it will be for results reporting
- Avoid Unpleasant Surprises. Review the requirements for results entry well ahead of study completion.

Preparing For Results Reporting

- When to Report Results?
 - Within 12 months of Primary Completion Date (final data collection for primary outcome(s)).
 - If product is not approved by Primary Completion Date but approved later, then results due 30 days after approval.
 - Delays are possible under limited circumstances.
 - Pending publication is NOT considered a good cause for delay
 - Publishing? If you think you can publish within the timeframe, best to prepare both at the same time. Otherwise, post results first, then publish, then update the results in CT.gov so they align.
 - In general, FDAAA requires all primary and secondary outcomes be reported within 12 months of Primary Completion Date
 - In cases where secondary outcome data has not yet completed at that time, report the primary outcome data in the above timeframe, then report the secondary outcome data as soon as available or no later than 12 months after final, study completion date.

Preparing for Results Reporting

- First Time? Check out these links:
 - 1. How to submit results: https://clinicaltrials.gov/ct2/manage -recs/how-report
 - 2. Basic Results Data Element
 Definitions:
 https://register.clinicaltrials.gov/prs/html/results-definitions.html
 - 3. PRS User Guide: Located on the Help menu dropdown, after login
 - 4. Results Data Entry section on Help Menu dropdown
 - 5. Webinars and additional training: https://clinicaltrials.gov/ct2/manage-recs/present#ResultsPresentation
- Continue to check for Changes: See What's New on the Help Menu dropdown.

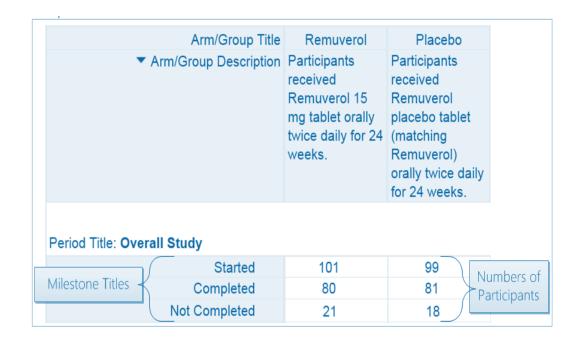


Preparing For Results Reporting

- How Are Results Reported in ClinicalTrials.gov?
- Tables are constructed by data providers (you)
 - Rows are measures
 - Columns are Arm / Groups
- 4 broad categories, each with different structure:
 - Participant Flow
 - Baseline Characteristics
 - Outcomes Measures and Statistical Analyses
 - Adverse Events

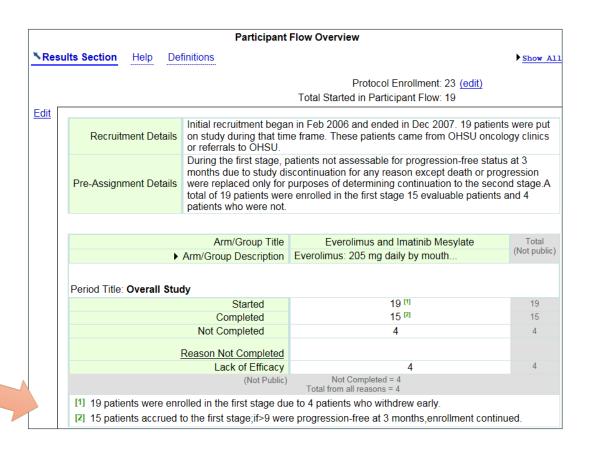
Definition:

A Table that shows how participants were assigned to intervention(s) and how they progressed through the study.



- Documents the "flow" of participants through different stages of the study
- Should account for all enrolled participants and which were analyzed (or not).
- Elements
 - Recruitment Details (key info related to recruitment process)
 - Pre-assignment Details (details relating to events following enrollment but prior to Arm/Group assignment)
 - Arm/Group (these should pre-populate from your registration)
 - Periods (e.g. "first intervention", "washout", "second intervention"), each would be a separate table.
 - Milestones (key events, e.g. "started at least one dose")
- Overall number "started" should match "Enrollment, Actual" total
- Refer to template: <u>http://prsinfo.clinicaltrials.gov/results_table_layout/DataEntryTable_PopFlowForm.pdf</u>

- Example 1:
- Study with one period, reports "Overall Study" and one table may be all that's needed.
- If protocol enrollment and total started don't match, be sure to add notes



- Example 2:
- Study that is reporting multiple periods

Recruitment Details	This clinical trial was conducted between 12/23/2008 to 3/27/2013 at Oregon Health and Science University's (OHSU) Center for Women's Health Breast Center in Portland, OR. English-speaking women were recruited to participate in the study based on the following inclusion criteria: ≥ 21 years, diagnostic mammogram with results that require biopsy.			
Pre-Assignment Details				
	T '41	0 1 0 1 1	D) 1	T
Arm/Group Title		Sulforaphane Supplement	Placebo	Total (Not public
► Arm/Group Description		Patients receive oral broccoli spro	Patients receive oral placebo supp	(rece public
Period Title: Treatment P	eriod arted	27	27	54
		- :	- :	43
Comple		24	19	
Not Comple	etea	3	8	11
Reason Not Co	ompleted			
Adver	se Event	1	5	6
Withdrawal by	/ Subject	2	3	5
((Not Public)	Not Completed = 3 Total from all reasons = 3	Not Completed = 8 Total from all reasons = 8	
Period Title: Follow-up				
Sta	ırted	24	• NOTE: The number of participants to start a Period is not equal to the number who completed previous Period.	48
Completed Final	Visit	24	24	48
Comple	eted	24	24	48
Not Comple		0	0	0

Definition:

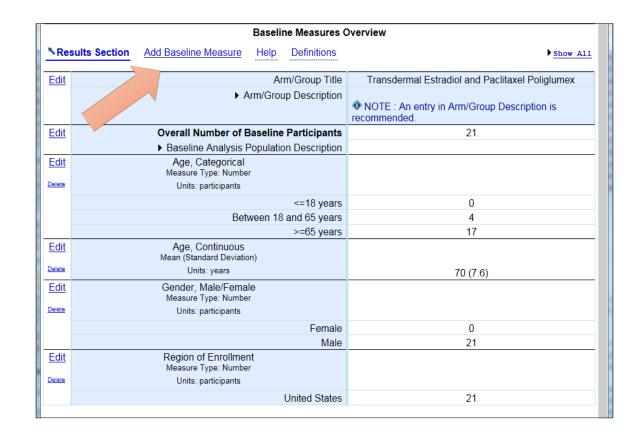
Baseline Characteristics is a table of demographic and baseline data, similar to *Table 1* in a journal article

Arm/Group Title	Remuverol	Placebo	Total
▶ Arm/Group		Participants received Remuverol pla	Total
Overall Number of Baseline Participants Baseline Analysis Population Description	101	99	200
Age Continuous units: years Mean (Standard Deviation)	34.78 (9.72)	35.34 (10.71)	34.98 (9.89)
Gender, Male/Female units: participants Measure Type: Number			
Female	60	63	123
Male	41	36	77

- Elements:
 - Demographic and baseline data for each Arm or Group
 - Accommodates different data types
 - Continuous: measure of central tendency (e.g. mean) and measure of dispersion (e.g., standard deviation)
 - Categorical: for each category 1) a count OR 2) measure of central tendency and measure of dispersion.
 - Default (Age, Race, Gender)
 - Study-Specific/User Defined (smoking, viral load, etc) choose what's applicable to the study
- Refer to templates: <u>http://prsinfo.clinicaltrials.gov/results_table_layo_ut/DataEntryTable_BaselineRegionRaceEthnicity_Form.pdf</u>

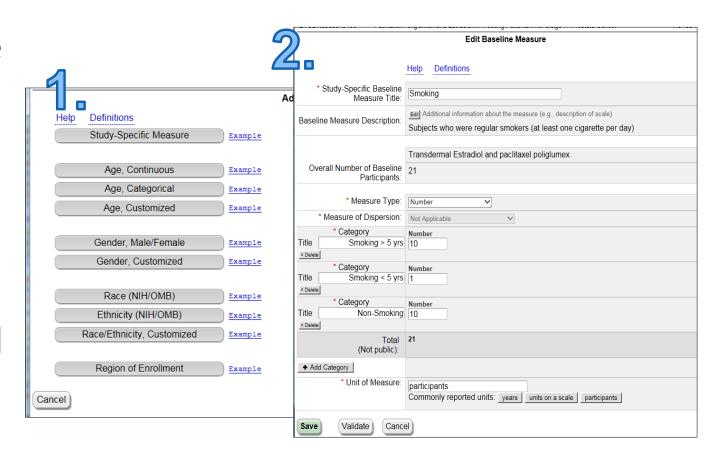
- Example:
- To add

 another
 measure,
 click Add
 Baseline
 Measure



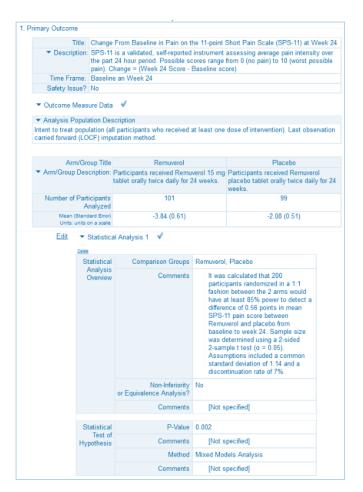
Add Baseline Measure cont.

- 1. Select the type (see link examples)
- 2. Enter details and Save



Definition:

The Outcome Measures module summarizes outcome data using a structured tabular format and for applicable clinical trials includes all prespecified primary and secondary outcomes. Displays the results and associated analyses.



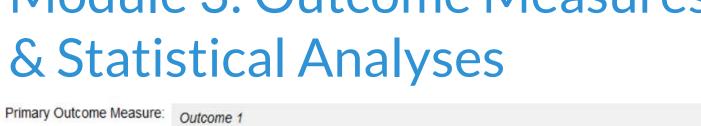
Elements

- Measure Type (Primary, Secondary, Other)
- Tables with Arms/Groups & Number of participants analyzed
- Descriptive Information
 - Title*
 - Description*
 - Unit of Measure*
 - Outcome Measure Time Frame*
 - Reporting Status
 - Safety Issue*
 - Measure Type
 - Measure of Dispersion/Precision (e.g. Standard Deviation)
- Data

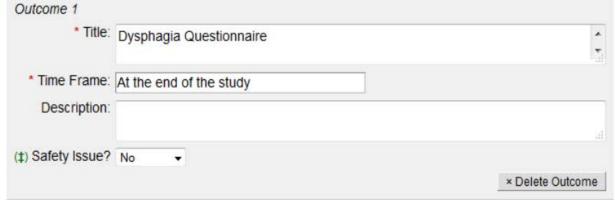
• Refer to template: http://prsinfo.clinicaltrials.gov/results table layout/DataEntryTable OMForm.pdf

^{*}Some data will auto-populate from your registration (titles, descriptions, timeframes, etc).

Module 3: Outcome Measures





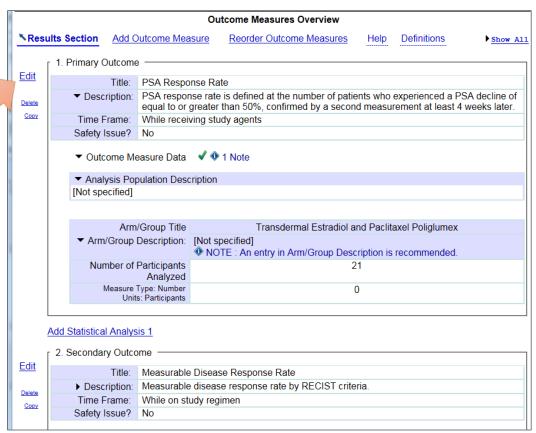


Primary Outcome Measure:



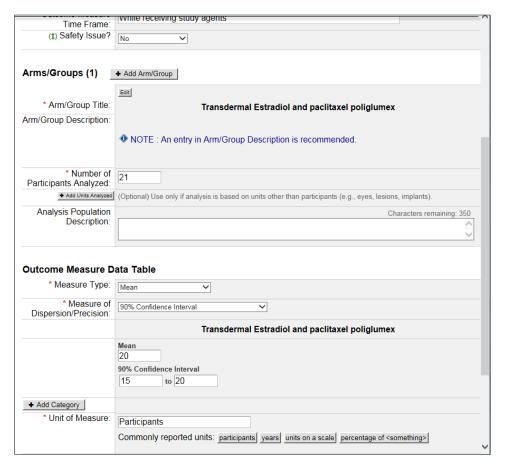
Outcome 1		
* Title:	Number of Patients with Complete Response to Dysphagia	*
	Baseline to 6 weeks	
Description:		al
(‡) Safety Issue?	No •	
		× Delete Outcome

- Example
- Journal articles have similar information, just presented in different format
- To edit outcome, click Edit next to listed outcome

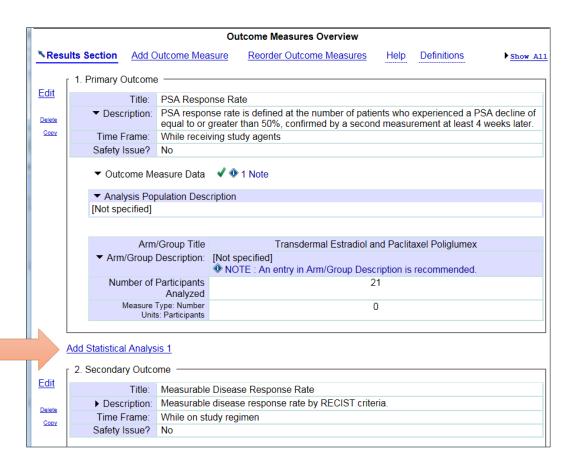


Edit Outcome cont.

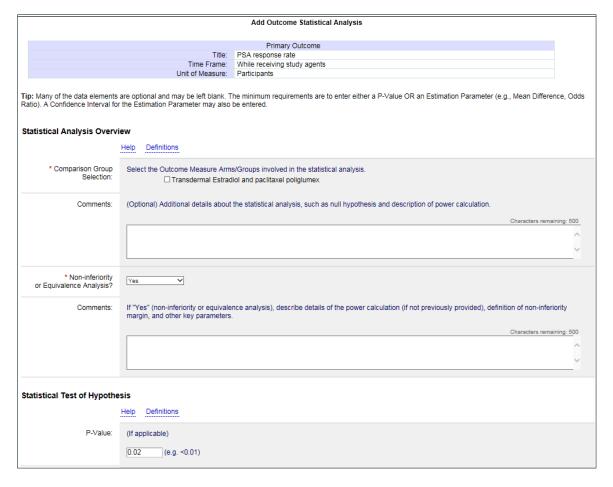
- 1. Make sure all * (required) fields are filled out
- 2. Completing optional description fields is recommended.
- 3. Select Measure Type
- 4. Measure of Dispersion
- 5. Enter Data
- 6. Select Units



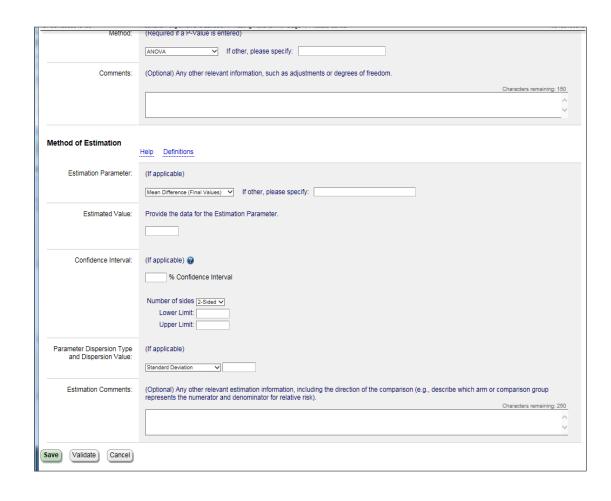
To Add a
 Statistical
 Analysis,
 Click Add
 Statistical
 Analysis



- Statistical Analysis cont.
 - 1. Select the outcome Arm/Group you are adding the analysis for
 - 2. Add Noninferiority or Equivalence Analysis
 - 3. Statistical Test of Hypothesis
 - 4. Method (ANOVA, Wilcoxon, etc.)



- Statistical Analysis cont.
 - 6. Adding comments for greater clarity is encouraged
 - 7. Enter method of estimation details
 - 8. Hit Save



Statistical Analysis cont.

Example

Measure Type	Primary
Measure Title	Invasive Breast Cancer Incidence (Breast Cancer-Free Survival)
Measure Description	Invasive breast cancer incidence was estimated from the breast cancer-free survival (BCFS) which was calculated for all women from the day of the randomization to the earliest date of diagnosis for invasive breast cancer. Women who died from other causes were censored at the time of death. If a woman did not develop an invasive breast cancer, or died, BCFS was censored on the date of the last day the woman was known alive (LKA), which was the latest of the date of assessment. Women who had breast cancer before study entry were also censored at the time of randomization.
Time Frame	Over study (median follow-up 35 months)
Safety Issue	No

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.

intention to treat (ITT) Reporting Groups

	Description	
Exemestane	25 mg of exemestane tablet daily	
Placebo	Placebo tablet daily	

Measured Values

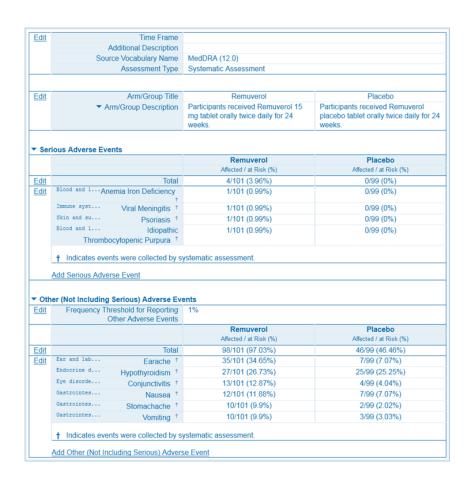
	Exemestane	Placebo
Number of Participants Analyzed [units: participants]	2285	2275
Invasive Breast Cancer Incidence (Breast Cancer-Free Survival) [units: percentage of cases/follow-up person-yr] Number (95% Confidence Interval)	0.19 (0.08 to 0.30)	0.55 (0.36 to 0.73)

Statistical Analysis 1 for Invasive Breast Cancer Incidence (Breast Cancer-Free Survival)

Groups [1]	All groups
Method [2]	Log Rank
P Value [8]	0.002
Hazard Ratio (HR) [4]	0.35
95% Confidence Interval	0.18 to 0.70

Definition:

"Unfavorable changes in health, including abnormal laboratory findings that occur in trial participants during the clinical trial or within a specified period following the trial."



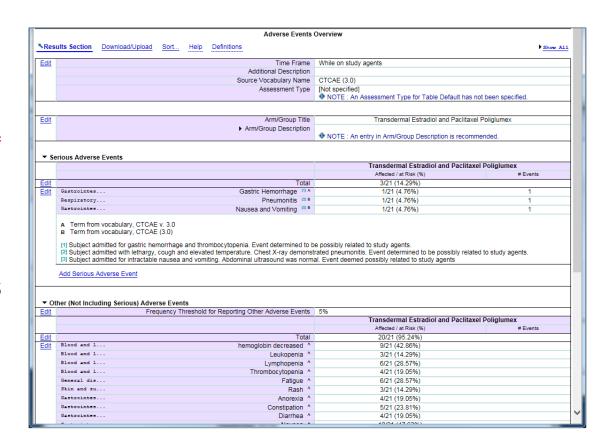
– Elements:

- Module consists of two tables of summary adverse event data for each Arm/Group.
- Serious Adverse Events (SAEs)
 - Includes a table of ALL anticipated and unanticipated SAEs grouped by organ system, with number and frequency of such events per Arm/Group
- Other Adverse Events
 - Includes a table of anticipated and unanticipated adverse events that exceed 5 % frequency within an Arm/Group.
- Refer to templates:
 - http://prsinfo.clinicaltrials.gov/results_table_layout/DataEntry Table_SAEForm.pdf
 - http://prsinfo.clinicaltrials.gov/results_table_layout/DataEntry_Table_FreqAEForm.pdf
- You can enter manually or download, then upload a template.

Example:

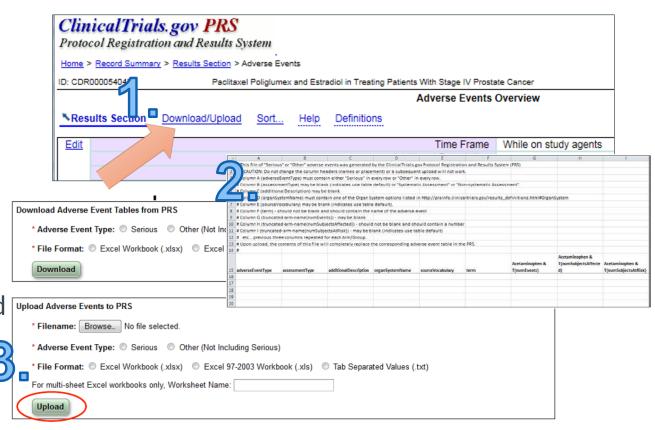
Data is complied by organ system then:

- Number of subjects affected*
- Number subjects at risk* (number that received the intervention)
- Number of events (optional)

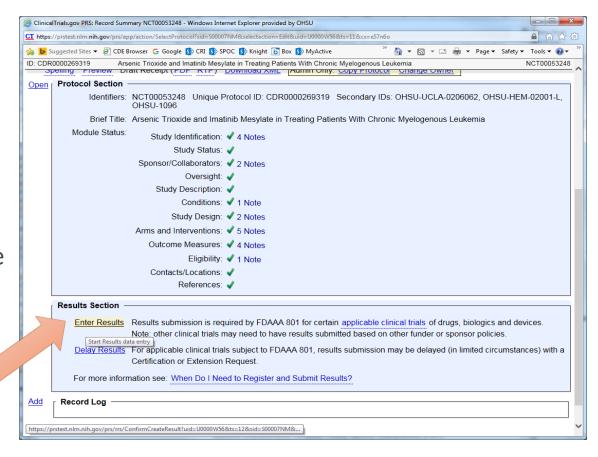


Download/ Upload Option – a likely time saver.

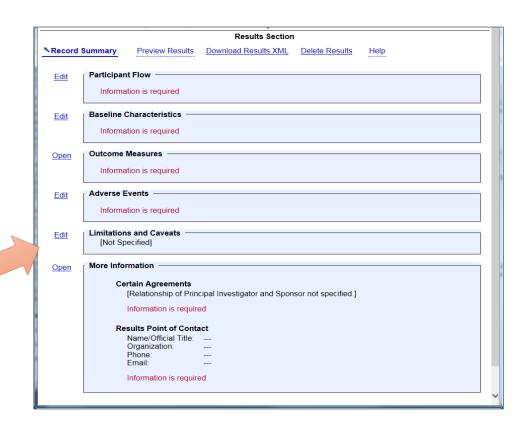
- Click
 Download
 /Upload
- 2. Download Excel template and fill out
- 3. Click upload



- When ready to start...
 - Login to PRS and navigate to your protocol registration
 - 2. Click Enter Results
 - This will set up the full outline of the Results Section for you (next screen)



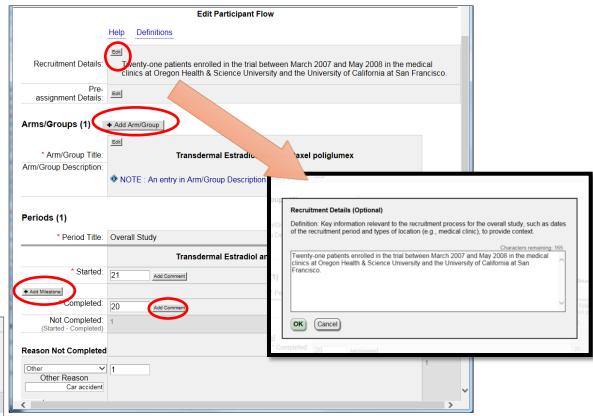
- Getting started cont.
 - 3. Click **Edit** to begin entry on the 4 modules
 - 4. When complete with all 4 modules, make sure to complete Limitations and Caveats (if applicable), and Agreements & Contacts
 - 5. Completing the Limitations section will be *important if there are issues with your results data* (incomplete data, terminated early, etc)



Navigation & Editing Tips

- Be aware, there are lots of nested edit functions & pop-ups
- Take your time, navigation can get confusing
- Don't forget to hitSave





- When you're <u>all finished</u> with results entry we recommend
 - Have a second person (ideally the PI and/or Biostatistician) review it
 - Mistakes can be embarrassing
 - You can export a RTF or PDF version of the entire registration & results data if they are not comfortable navigating in CT.gov



• Complete, Approve then Release the record and it will then go into PRS Review (QA)

In Progress
Entry Completed
Approved
Released
PRS Review
Public

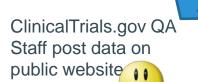
Reset to In-Progress...

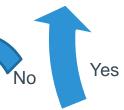
Next Step: Release record
Release...

Focus of the QA process is on logic, internal consistency, apparent validity, meaningful entries and formatting

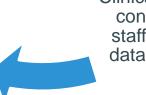
ClinicalTrials.gov staff reset record to 'In Progress' an notifies QA Comments

Data provider Inputs Results & Releases the Record





Are there QA issues with the results?



ClinicalTrials.gov conducts QA staff review of data (30 days)

- The QA Process can take a while, especially if it happens multiple times
- The more accurate, complete and specific the results are, the quicker the process will go
- To review the comments, login to PRS and select PRS Review Comments under the

Records ▼

New Record

New Record

Showing: 6 records

Protocol ID

Protocol123

Record List

Quick Start Guide Problem Resolution Guide Accounts ▼ Help ▼

PRS Review Comments

Double-Blind

Upload Records (XML)

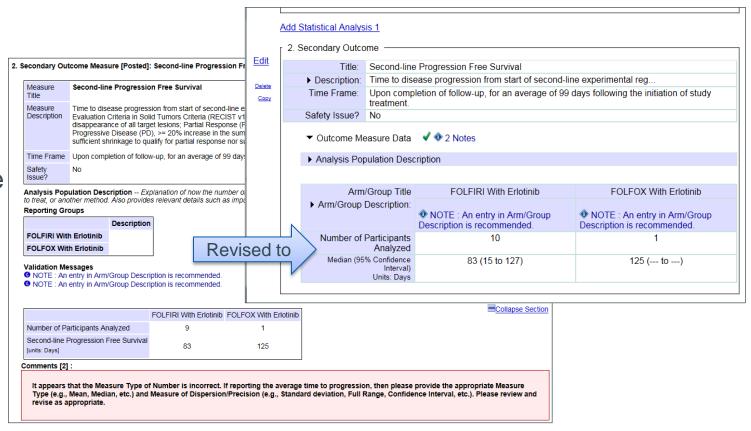
Upload from NCI CTRP

Clinica Check XML Upload Status

Records menu.

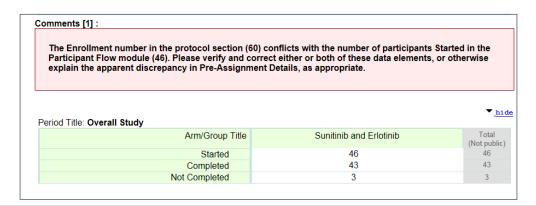
Example 1:

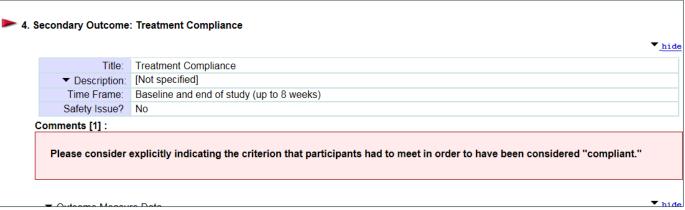
Measure
 Types need
 to be
 consistent
 with outcome
 description



Example 2 & 3

- Totals
 should
 match with
 enrollment,
 else explain.
- Outcome title and/or description need to be specific

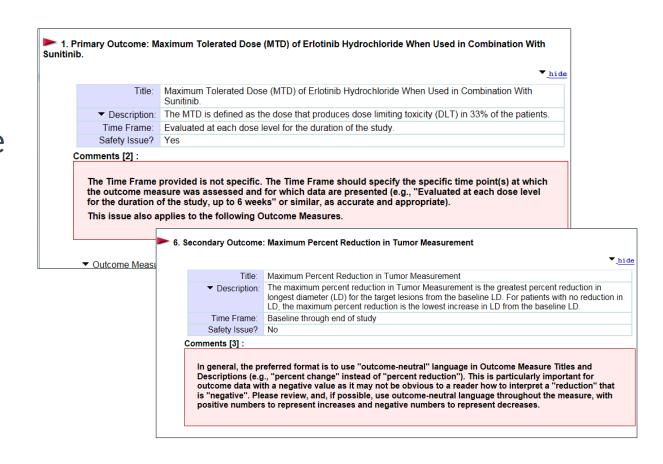




Example

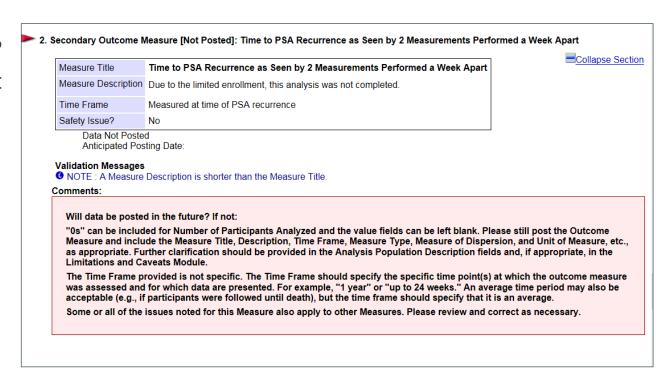
4&5

- Timeframe need to be specific
- Outcome language should be "neutral"



Example 6

- What if I don't have the data?
 - Studies that terminated early - can enter 'Os'
 - Or apply for an extension if you think you will get the data
- Better to post what you have by due date, than be late.



Overall Tips & FAQS

- Remember to hit Save to your work, or Cancel if you don't want to Save
- Publications can be more detailed and expansive than posted results but they should be consistent & congruent. If publishing <u>after</u> posting results, go back and update results to ensure they are consistent
- Make sure units and scales are labeled and understandable
- Outcome titles, avoid using verbs (e.g. "To determine...")
 focus on <u>what</u> is measured and not why
- You are not required to address all auto-generated "Notes" before submitting your results, however, warnings and errors should be addressed
- Make sure acronyms are spelled out first time they are used

References and Additional Resources

- Clinicaltrials.gov information general results info: https://www.clinicaltrials.gov/ct2/about-site/results
- Clinicaltrials.gov information detailed results info: https://clinicaltrials.gov/ct2/manage-recs/how-report
- Questions?
 - ClinicalTrials.gov staff register@clinicaltrials.gov
 - Oncology/Cancer Studies (Knight Cancer Institute) ctrp-admin@ohsu.edu
 - Non-cancer OCTRI {Contact??}
- FDAAA & Elaborations of Defintions: https://www.clinicaltrials.gov/ct2/manage-recs/fdaaa
- CMS Mandatory Reporting of NCT #s on Medicare Claims Q&A <u>https://www.cms.gov/Medicare/Coverage/Coverage-with-Evidence-Development/Downloads/Mandatory-Clinical-Trial-Identifier-Number-QsAs.pdf</u>
- PRS User's Guide XML section (must be logged in to PRS to access)
 https://register.clinicaltrials.gov/prs/app/template/ReferenceGuide.vm?popup=true&uid=U0000W56
 &ts=3&cx=-pf1azb#xml
- OHSU Knight Clinical Trial Registration SOPs: CR007, CR013 https://bridge.ohsu.edu/research/knight/policies/SitePages/Home.aspx
- Knight CTRP staff ctrp-admin@ohsu.edu
- OHSU ClinicalTrials.gov IRB Help Sheet: <u>http://www.ohsu.edu/xd/about/services/integrity/policies/upload/Clinical-Trials-ClinicalTrials-gov-Registration-Requirements-Help-Sheet.pdf</u>

Some of the slides were adapted with permission from the work of the Clinical and Translational Science Awards (CTSA) program's Clinical Trials Registration Workgroup of the Regulatory Knowledge Key Function Committee. Original slides available at Harvard Catalyst https://catalyst.harvard.edu/programs/regulatory/clinical-trial-reg.html

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Thank You