NIAMS Data and Safety Monitoring (DSM) Report Template for Multi-Site Studies

-Open Session-

DSM Report Template: Instruction Sheet

The following report template is intended to act as guidance and a reference document for investigators, study staff, data managers, study statisticians and others involved in submitting periodic reports to a Monitoring Body (e.g., Data and Safety Monitoring Board, Safety Officer). The proposed structure should be customized according to the individual study needs. Additional or fewer reports may be appropriate, but the template serves as a starting point.

Prior to the first Monitoring Body report, study team members should review this template and customize it to the specific needs of the protocol. During the introductory call, the designated study team member who is responsible for preparing these reports (i.e., statistician, data manager) should present the customized table shells to the NIAMS and the Monitoring Body. The final format of the reports, tables, and listings will be approved by the Monitoring Body and the NIAMS. This process will ensure the appropriate study data are presented to the Monitoring Body and will promote efficiency in the creation of future safety reports.

The design, scope and nature of a study will impact how data are presented. Outlined below are a few issues that should be considered as this document is tailored:

- For studies in which there are masked treatment groups, the Monitoring Body, at its discretion, may request and review unmasked data in the closed session materials. The decision to present results in an unmasked fashion should be discussed with the NIAMS and the Monitoring Body.

- It is recommended that data stratified by treatment group be masked (i.e., Treatment A versus Treatment B).

- As a general rule, interim results should not be presented unless interim analyses are described in the protocol or the Monitoring Body has requested an interim analysis to assess a safety concern or study futility. The decision whether or not to present interim or final results in this report should be discussed with the Monitoring Body and the NIAMS.

Template Recommendations:

- In the following templates, the instructions, explanatory text, and examples are indicated by blue text. Be sure to replace examples with protocol-specific details.
- Instructional text will also be enclosed in {braces} to signify this text for screen-readers used by the visually impaired.
- Delete template-specific instructional text and this Instruction Sheet during the report development process.

Report Cover Page

Protocol Title/number:	<Insert title of the protocol>
Grant Number:	<Insert grant number>
Principal Investigator (PI):	<Name of PI PI's Title Institution Address>
Meeting date:	<Insert date of the scheduled meeting, if applicable>
Date of Report:	<Insert date that the report is being issued>
Data as of:	<Insert the date of the data snapshot for the analyses in this report>
Prepared by:	<Name of person who prepared the report Person's Title Place of employment Address>

Table of Contents

Protocol Synopsis and Milestone Timeline

{Add, delete, or modify protocol headings as required. Enter appropriate information in second column; some guidance has been provided.}

Study Design Type

☐ Intervention, specify type of Intervention (check more than one if applicable):

☐ Drug ☐ Biologic ☐Behavioral/Lifestyle ☐ Surgical

☐ Non-interventional

NIAMS Data and Safety Monitoring (DSM) Report Protocol Synopsis and Milestone Timeline		Comments If any of the information has changed since the time of the last report, please explain.
Project Period <Insert the start and end dates of the study as stated on the Notice of Grant Award; indicate any no cost extensions/supplements if applicable>		
Trial Registered on ClinicalTrials.gov <Insert date (i.e., mm/yyyy) the trial was registered on the ClinicalTrials.gov website. Date should be no later than 21 calendar days after enrolling the first participant>		
Initial IRB Approval Date <Insert the date the study received IRB approval>		
Regulatory Clearances Date <Insert the date the study received FDA clearance e.g. IDE/IND, if applicable>		
Anticipated Site Agreements Signature Date <Insert the date of the signature on the agreements>		

Actual Site Agreements Signature Date <Insert the date of the signature on the agreements>		
NIAMS Study Commencement Date <Insert date NIAMS granted approval for enrollment to begin>		
Study Opened to Enrollment <Insert the date when the study was opened to recruitment>		
Planned Enrollment Number <Insert target number of participants to be enrolled. This is the number of participants required per protocol (this number will be compared to the "Actual Number Enrolled"). This number is expected to remain unchanged, unless a protocol amendment changes this required number and is approved by the NIAMS. A history of the changes should be noted in the comments section.>		
Enrollment Definition <Insert how enrollment is defined as stated in your study protocol (i.e., enrolled = consented and randomized)>		
Target Enrollment Start Date <Insert planned date (i.e., mm/yyyy) for the first participant enrolled>		
Actual Enrollment Start Date* <Insert date the first participant was enrolled>		
Target 25% Enrolled Date <Insert planned date (i.e., mm/yyyy) for when 25% of the participants will be enrolled>		
Actual 25% Enrolled Date* <Insert the actual date (i.e., mm/yyyy) when 25% of the participants were enrolled>		

Target 50% Enrolled Date <Insert planned date (i.e., mm/yyyy) for when 50% of the participants will be enrolled>		
Actual 50% Enrolled Date* <Insert the actual date (i.e., mm/yyyy) when 50% of the participants were enrolled>		
Target 75% Enrolled Date <Insert planned date (i.e., mm/yyyy) for when 75% of the participants will be enrolled>		
Actual 75% Enrolled Date* <Insert the actual date (i.e., mm/yyyy) when 75% of the participants were enrolled>		
Target 100% Enrolled Date <Insert planned date (i.e., mm/yyyy) for the last patient enrolled>		
Actual 100% Enrolled Date* <Insert date the last participant was enrolled>		
Target Last Visit Date <Insert planned date for the last participant visit (i.e., mm/yyyy); last patient out>		
Actual Last Visit Date* <Insert date for the last participant visit>		
On-protocol Duration (per participant) – e.g., 24 months <Insert the planned length of time each participant will be on protocol, starting with enrollment and ending with the last follow-up visit>		
Intervention Duration **(per participant) – e.g., 6 weeks <Insert the planned length of time the intervention will be administered to each participant per the protocol>		

Interim Analysis Planned <Insert planned date (i.e., mm/yyyy) for the interim analysis>		
Interim Analysis Completed <Insert date (i.e., mm/yyyy) when the interim analysis was completed>		
Interim Analysis Reviewed by Data and Safety Monitoring Board <Insert date (i.e., mm/yyyy) when the interim analysis was reviewed by the safety monitoring board>		
Target Database Lock <Insert planned date (i.e., mm/yyyy) for the database lock once all data queries have been completed>		
Actual Database Lock* <Insert date the database was locked>		
Target Primary Analysis Complete <Insert planned date (i.e., mm/yyyy) for the analysis of the primary outcome measure(s) to be completed>		
Actual Primary Analysis Complete* <Insert date the analysis of the primary outcome measure(s) was completed>		
Target Secondary Analysis Complete <Insert planned date (i.e., mm/yyyy) for the analysis of the secondary outcome measure(s) to be completed>		
Actual Secondary Analysis Complete* <Insert date the analysis of the secondary outcome measure(s) was completed>		

Trial results Posted on ClinicalTrials.gov <Insert date the results were posted on the ClinicalTrials.gov website no later than 1 year after the "primary completion date" of the trial. Date of final data collection for the primary outcome measure>		
Target Final Study Report Completed Date		
Actual Final Study Report Completed Date*		
Data Repository Submission <Insert date when the data repository was submitted, if applicable>		

***Insert 'not applicable' until milestone is reached.
** Insert 'not applicable' for studies without an intervention duration (i.e., surgical or observational studies)

Executive Summary

{Add, delete, or modify summary topics as needed. Executive summary information may also be presented in PowerPoint.}

Study Overview Since the Last Monitoring Body Meeting	*Provide a summary of enrollment and important events since the last Monitoring Body meeting/report. The date through which the enrollment and safety data are provided should be indicated in this section.*
Overall Study Status	*{Example information:}* • Provide status of sites (e.g., IRB approval, whether recruitment has begun, timeframe for IRB approval/enrollment start) • # of participants screened • # of participants enrolled • # of participants awaiting treatment • # of participants in follow up • # of participants completed the protocol • Discontinued from study/follow up not ongoing
Stopping Rules ***{Use terminology that matches the protocol throughout this report}***	Provide information on whether any participants have met stopping rules since the previous Monitoring Body review.
Safety Summary	*Please summarize important safety events that have occurred in the study. Please also include details of any events that occurred since the last Monitoring Body meeting/report.* *{Example text:}* • 10 adverse events have occurred in 7 subjects • 5 new adverse events are being reported since the previous Monitoring Body report • There have been no additional serious adverse events since the last Monitoring Body meeting • Of the 10 adverse events, all were considered either mild or moderate • Only one adverse event was deemed related to the intervention
Protocol Deviations and Action Taken	*Please summarize protocol deviations that have occurred in the study. Please also include details of any events that occurred since the last Monitoring Body meeting/report.* *{Example text:}* • 10 protocol deviations associated with 5 subjects have been reported.

	• None of the deviations have impacted subject safety. • The protocol deviations did not meet the IRB's reporting requirements
Summary of Protocol Changes and New Requests for Protocol Changes	*Please summarize any protocol changes that were implemented since the last Monitoring Body meeting/report. Please describe the change and status of IRB/Monitoring Body/NIAMS approval.* *Any new protocol change requests for consideration by the Monitoring Body/NIAMS should also be summarized.* *{Example text:}* • One protocol amendment was submitted allowing the upper age of subjects to be extended to 65. This change was approved by the Monitoring Body on (date) and the IRB on (date). The protocol, MOOP, and informed consent forms have been revised and submitted to the NIAMS through KAI.

Study Administration

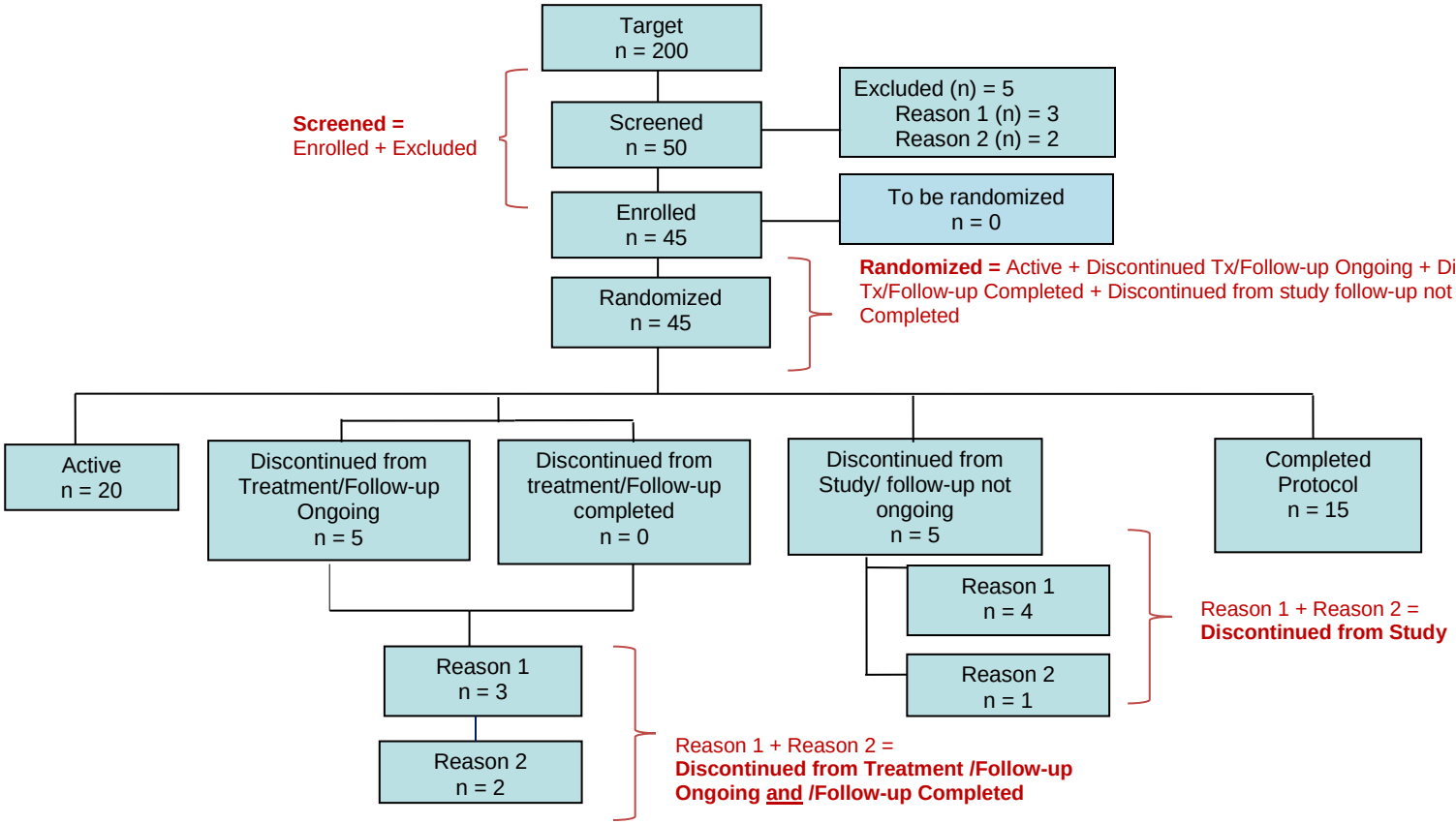
Recruitment and Participant Status:

Figures and Tables

Figure 1: Enrollment: Overall Study Status

Data as of: _____

Date of report: _____



{Describe where participants are in the study in relation to enrollment milestones, such as the number of participants screened, enrolled, and randomized. For some protocols, it is important to distinguish between participants who withdrew early from the study and those who discontinued treatment but may or may not still be followed.}

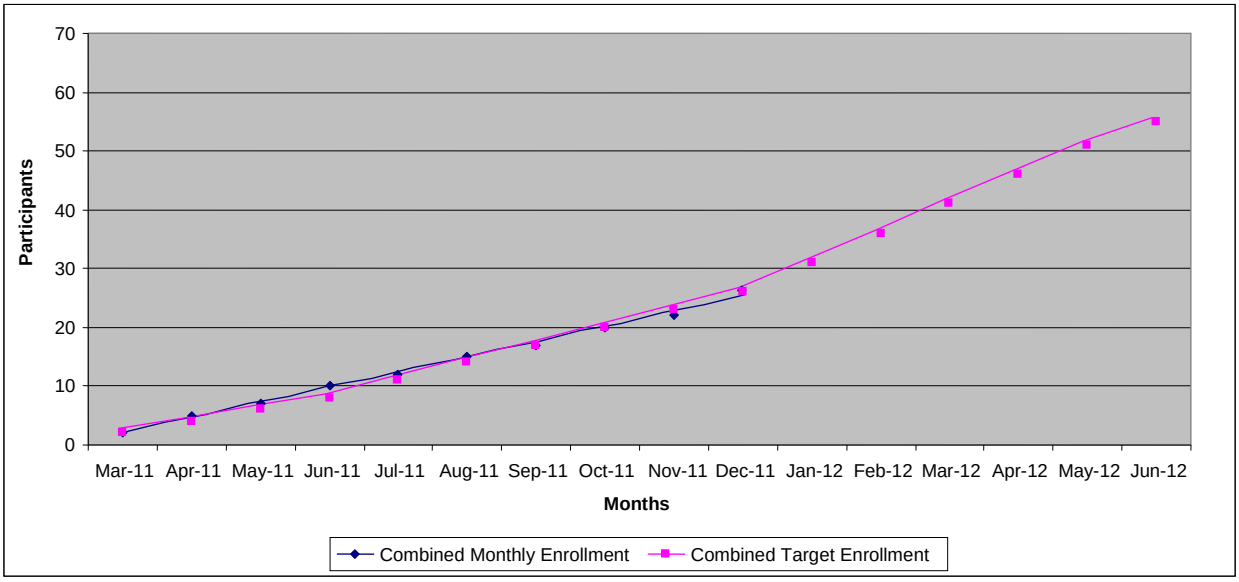
Reference: Schulz KF, Altman DG, Moher D, for the CONSORT Group. CONSORT 2010 Statement: updated guidelines for reporting parallel group randomized trials. Ann Int Med 2010:152.

Figure 2: Enrollment: Actual vs. Expected

All Sites - Aggregate

Data as of: Dec.20, 2011

Date of report: Jan. 31, 2012

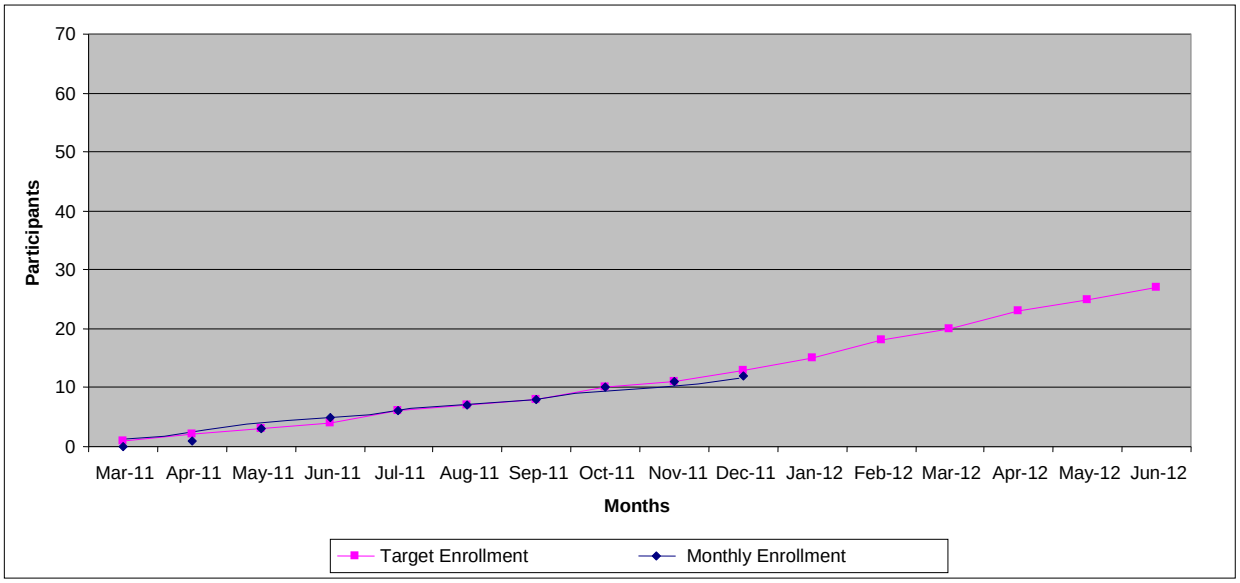


Time Period	Expected Number of Participants (cumulative)	Actual Number of Participants (cumulative as of 12/20/2011)
Mar 11	2	2
Apr 11	5	5
May 11	7	7
Jun11	10	9
Jul 11	12	11
Aug11	14	11
Sep 11	16	16
Oct 11	18	18
Nov 11	20	19
Dec 11	22	22
Jan 12	30	
Feb 12	35	
Mar 12	40	
Apr 12	42	
May 12	50	
Jun 12	55	
Totals	**55**	**22**

Numbers should be displayed **cumulatively**, adding the number of participants from the previous month(s) to each new row.

{Provide the expected number of cumulative participants by estimated enrollment time period through the end of the expected enrollment period. Provide the actual cumulative enrollment up until the Monitoring Body report closing date. As necessary, customize the X and Y axis categories per the protocol specifications. Depending on the length of study and design, the time points can be equal to days, weeks, months, quarters or years. Provide enrollment statistics using a separate figure for each site if the study involves multiple sites, see example below.}

Site 1



Time Period	Expected Number of Participants (cumulative)	Actual Number of Participants (cumulative as of 12/20/2011)
Mar 11	1	0
Apr 11	2	1
May 11	4	4
Jun11	5	4
Jul 11	7	7
Aug11	8	8
Sep 11	9	9
Oct 11	10	10
Nov 11	11	11
Dec 11	12	12
Jan 12	13	
Feb 12	15	
Mar 12	20	
Apr 12	23	
May 12	25	
Jun 12	28	
Totals	**28**	**12**

Table 1: Participant Enrollment Status

Data as of: _____

Date of report: _____

	Site 1		Site 2		Total	
	n	**%***	**n**	**%***	**n**	**%***
Enrolled		100		100		100
Active						
Completed Protocol						
	n	**%****	**n**	**%****	**n**	**%****
Discontinued from Treatment/Follow-up Ongoing		100		100		100
Reason 1 ****						
Reason 2						
	n	**%*****	**n**	**%*****	**n**	**%*****
Discontinued from Treatment/Follow-up Completed		100		100		100
Reason 1						
Reason 2 Other (specify):_____						
	n	**%*****	**n**	**%*****	**n**	**%*****
Discontinued from Study/Follow-up Not Ongoing		100		100		100
Reason 1						
Reason 2						

***** *% of participants who are enrolled.*

****** *% of participants who have discontinued treatment, but continued to be followed as part of the study. For some protocols, it is important to distinguish between participants who withdrew early from the study and those who discontinued treatment but may or may not still be followed.*

******* *% of participants who have discontinued the study and are no longer being followed.*

******** *Reasons should be customized with items relevant to the study protocol.*

Table 2: Screen Failures by Site

Data as of: _____

Date of report: _____

Reasons*	**Site 1**		**Site 2**		**Total**	
	n	**%**	**n**	**%**	**n**	**%****
Reason 1						
Reason 2						
Total Screened						
Total Screen Failures						

***Reasons should be customized with items relevant to the study protocol.*

*** % of the total number screened; the number of screen failures should be equivalent to the total number of participants screened minus the total number of participants enrolled.*

Table 3: Demographics by Site

Data as of: _____

Date of report: _____

Characteristics*		Site 1 n (%)	Site 2 n (%)	Site *i* n (%)	Total n (%)	Target (n%) (from target enrollment table in grant)
Total Enrolled:						
Gender	Male					
	Female					
Ethnicity	Hispanic or Latino					
	Not Hispanic or Latino					
	Missing					
Race	American Indian/Alaska Native					
	Asian					
	Black or African American					
	Native Hawaiian or Other Pacific Islander					
	White					
	More than one race					
	Missing					
Education	Grade School					
	High School or equivalent					
	Some college, no degree					
	College degree					
	Graduate degree					
	Doctoral					
Age	Mean					
	Standard Deviation					
	Median					
	Minimum					
	Maximum					

***** *Characteristics should be customized with items relevant to the study protocol; the items listed are only examples.*

Table 4: Key Baseline Characteristics by Site

Data as of: _____

Date of report: _____

Characteristics*		Site 1 n (%)	Site 2 n (%)	Site *i* n (%)	TOTAL n (%)
Body Mass Index	Below 18.5				
	18.5 – 24.9				
	25.0 – 29.9				
	30.0 and Above				
Western Ontario and McMaster Universities Arthritis Index (WOMAC) Total Score	Mean				
	Standard Deviation				
	Median				
	Minimum				
	Maximum				

***** *Characteristics should be customized with items relevant to the study protocol (e.g., stratification variables); the items listed are only examples.*

Table 5: Study Duration for All Participants

Data as of: _____

Date of report: _____

Time in Study* **Total n=**	**Expected**** **n (%)**	**Actual***** **n (%)**
Visit 1		
Visit 2		
Visit 3		
Visit 4		
Completed Study		

***** *Should be customized to visit schedule and can be shown by visits, days, weeks, months, or treatment periods.*

****** *Number of participants expected to complete each study milestone.*

******* *Number of participants who completed each study milestone.*

Study Administration

Data Quality Tables

Table 6: Summary of Missed Visits by Site

Data as of: _____

Date of report: _____

Missed Visits	Site 1 n (%)	Site 2 n (%)	Total n (%)
Number of Completed Participants			
Number of Participants Missing Visits			
Number of Missed Visits			
Average Number of Missed Visits for Completed Participants			
Number of Active Participants			
Number of Participants Missing Visits			
Number of Missed Visits			
Average Number of Missed Visits for Active Participants			

{This table should display the number of participants missing visits and the number of actual missed visits divided by those who are currently active on the protocol and those who completed.}

Table 7: Summary of Case Report Forms (CRFs) Completed by Site

Data as of: _____

Date of report: _____

CRFs*	Site 1			Site 2		
	Number of CRFs Expected	**Number of CRFs Completed**	**% of Missing CRFs**	**Number of CRFs Expected**	**Number of CRFs Completed**	**% of Missing CRFs**
Demographics						
Medical History						
Vital Signs						
etc.						
All (total)						

***** *The CRFs listed should be customized with items relevant to the study protocol; the CRFs listed are examples but are not required.*

Safety Assessments for All Participants:

Tables and Listings

Table 8: Incidence of Adverse Events by Body System and Preferred Term

Data as of: _____

Date of report: _____

Body System and Preferred Term*	Total n=		
	n_i**	(%)***	Events****
Overall			
Body System 1***			
Preferred Term 1			
Preferred Term 2			
etc.			
Body System 2			
Preferred Term 1			
Preferred Term 2			
etc.			
Body System 3			
etc.			

{Standard medical terminology should be used when recording AEs. Furthermore, it is recommended that studies that plan to submit data to regulatory authorities should code their AE data using an electronic coding system such as the Medical Dictionary for Regulatory Activities (MedDRA) or the Common Terminology Criteria for Adverse Events (CTCAE).

**The Preferred Term is a distinct descriptor (single medical concept) for a symptom, sign, disease, diagnosis, therapeutic indication, investigation, surgical, or medical procedure, and medical, social, or family history characteristics*

*** Number of participants experiencing an AE (participant is to be counted only once for each adverse event).*
**** % of total number of participants in the study.*

***** Number of events for Body System and Preferred Term.*

****** Body Systems may include: Blood and lymphatic system disorders; Cardiac disorders; Congenital, familial and genetic disorders; Ear and labyrinth disorders; Endocrine disorders; Eye disorders; Gastrointestinal disorders; General disorders and administration site conditions; Hepatobiliary disorders; Immune system disorders; Infections and infestations; Injury, poisoning and procedural complications; Investigations; Metabolism and nutrition disorders; Musculoskeletal and connective tissue disorders; Neoplasms benign, malignant and unspecified (incl cysts and polyps); Nervous system disorders; Pregnancy, puerperium and perinatal conditions; Psychiatric disorders; Renal and urinary disorders; Reproductive system and breast disorders; Respiratory, thoracic and mediastinal disorders; Skin and subcutaneous tissue disorders; Social circumstances; Surgical and medical procedures; Vascular disorders.*

Table 9: Severity of Adverse Events by Preferred Term

Data as of: _____

Date of report:_____

Preferred Term*	Total n=		
	Mild	Moderate	Severe
	n** (%)***	n (%)	n (%)
Preferred Term 1			
Preferred Term 2			

**For each preferred term, sort by most common event in descending order of incidence.*

***Number of participants experiencing a certain severity of an adverse event where each participant is counted only once at highest level of severity.*

****% of participants experiencing a certain severity of an adverse event.*

Listing 1: Adverse Events by Site

Data as of: _____

Date of report: _____

Site	Participant ID	Age	Gender	Event Term	AE Onset Date	AE Stop Date	Study Intervention Onset Date	Study Intervention Stop Date	Relationship*	Participant discontinued from intervention?	Expected (Y/N)	Severity**	Outcome***	Serious (Y/N)

***** *Relationship should be specifically defined for each study (i.e., Relationship to intervention, Relationship to study drug, etc.) The following are commonly used categories: Definitely, Probably/Possibly, Not Related*

****** *The following are commonly used categories: Mild, Moderate, Severe.*
******* *Outcome:*

Recovered, without treatment
Recovered, with treatment
Still Present, no treatment
Still Present, being treated
Residual effect(s) present-no treatment
Residual effect(s) present-being treated
Subject died

Listing 2: Serious Adverse Events by Site*

Data as of: _____

Date of report: _____

Site	Participant ID	Age	Gender	Event Term	Study Intervention Duration**	Study Intervention Start Date	Study Intervention Stop Date	SAE Onset Date	SAE Stop Date or Ongoing	Relationship to Study***	Expected? (Yes/No)	Outcome ****	Unanticipated Problem?***** (y/n)

** This listing can be sorted by SAE Description or by Participant ID.*
*** The number of days on study treatment at the onset of the SAE.*
**** Relationship should be specifically defined for each study (i.e., Relationship to intervention, Relationship to study drug, etc.) The following are commonly used categories: Definitely, Probably/Possibly, Not Related.*
***** Outcome:*

Recovered, without treatment
Recovered, with treatment
Still Present, no treatment
Still Present, being treated
Residual effect(s) present-no treatment
Residual effect(s) present-being treated
Subject died

******The incident must meet the following criteria to qualify as an Unanticipated Problem:*

- *was unexpected in terms of nature, severity, or frequency*
- *is definitely or possibly related to participation in the research*
- *suggests that the research places subjects or others at a greater risk of harm than was previously known or recognized*

NOTE: All AEs in Listing 1 that have been designated as an SAE ("Y") should also be included on this Listing.

Listing 3: Deaths by Site

Data as of: _____

Date of report: _____

Site	Participant ID*	Gender	Age	Date Enrolled	Date of Death	Study Intervention Start Date	Study Intervention Stop Date	Cause of Death	Relationship **

***** *It is expected that individuals will be listed on Listing 1: Adverse Events, Listing 2: Serious Adverse Events and the more detailed Listing 3: Deaths by Site.*

****** *The following are commonly used categories for relationship: Definitely, Probably/Possibly, Not Related.*

Table 10: Laboratory Test Results Summary*

Data as of: _____

Date of report: _____

----------Change from Baseline----------

Laboratory Test	Study Visits												
		n	Mean	SD	Median	Min	Max	n	Mean	SD	Median	Min	Max
Test 1	Screening												
	Visit 1												
	Visit 2												
	Visit 3												
	Visit 4												
Test 2	Screening												
	Visit 1												
	Visit 2												
	Visit 3												
	Visit 4												
etc…	Screening												
	Visit 1												
	Visit 2												
	Visit 3												
	Visit 4												

** Table may include lab test results that are clinically significant, as defined by the protocol, or ALL lab test results.*

Table 11a - 11i: Laboratory Test Results Summary by Site*

Data as of: _____

Date of report: _____

----------Change from Baseline----------

Laboratory Test**	Study Visits												
		n	Mean	SD	Median	Min	Max	n	Mean	SD	Median	Min	Max
Test 1	Screening												
	Visit 1												
	Visit 2												
	Visit 3												
	Visit 4												
Test 2	Screening												
	Visit 1												
	Visit 2												
	Visit 3												
	Visit 4												
Etc…	Screening												
	Visit 1												
	Visit 2												
	Visit 3												
	Visit 4												

** One table for each site.*

*** Table may include lab test results that are clinically significant, as defined by the protocol, or ALL lab test results.*

Listing 4: Clinically Significant Abnormal Lab Values by Site

Data as of: _____

Date of report: _____

Site	Participant ID	Study Visit	Lab Test	Baseline Result	Current Result	% Change from Baseline	Normal Range

{Lab tests that are deemed clinically significant as specified in the study protocol should be listed along with baseline result and normal range as stated by the study lab.}

Listing 5: Unanticipated Problems

Data as of: _____

Date of report: _____

Site	Date UP Identified	Date of UP incident	UP Description*	Subject ID (or describe group affected)**	Action taken*** (1 -10, include all that apply)	Action taken, specify	SAE? (yes/no)	Reported to the IRB? (yes/no)	IRB action required? If yes, describe response from IRB (attach correspondence, if necessary)

{The incident must meet the following criteria to qualify as an Unanticipated Problem:

- *was unexpected in terms of nature, severity, or frequency*
- *is definitely or possibly related to participation in the research*
- *suggests that the research places subjects or others at a greater risk of harm than was previously known or recognized}*

**Describe harm or potential harm that occurred to subject(s), whether the incident is resolved, and whether the subject(s) remains in the study. If the Unanticipated Problem is a serious adverse event, submit this form and complete the Serious Adverse Event form.*

***If the Unanticipated Problem affects a particular group in the study, please identify that group, i.e., subjects in Treatment Group A, subjects enrolled before January 1, 2014, etc. If a group of individuals affected is across more than one treatment group, it may not be possible to complete this field.*

****Action taken with the study as a result of the Unanticipated Problem? (include all that apply)*

1- No action
2- Revise protocol to eliminate apparent immediate hazards to subjects
3 - Modification of inclusion or exclusion criteria to mitigate newly identified risks
4 - Implementation of additional procedures for monitoring subjects
5 - Suspension of enrollment of new subjects
6 - Notify currently enrolled subjects
7- Suspension of research procedures in currently enrolled subjects
8 - Modification of consent documents to include a description of newly recognized risks (site and/or study wide)
9 - Provision of additional information about newly recognized risks to previously enrolled subjects
10 – Other, specify

Listing 6: Protocol Deviations

Data as of: _____

Date of report: _____

Site	Participant ID	Deviation Date	Deviation Description*	Deviation Category**

***Deviation Description - record what occurred and why. For example, an expired drug was used by a new coordinator who did not check the expiration date. The description should also include remedies taken. In this case, the participant/subject was called to return the drug and was issued unexpired medication.*

****Deviation Category – provide a category of the protocol deviation description. Example deviation categories include: Randomization of ineligible participant; Failure to obtain consent; Participant seen outside window of follow-up; Not reporting serious adverse event.*