EMBED Data Submission - Data Format and SOP V5. 2020.10.11 Technical Specifications

DATA SUBMISSION FREQUENCY: __once a month starting from ~two months after start of the study.

DATA INCLUDED IN EACH SUBMISSION:

A requirement of the data submission is to assure data remains de-identified. Of specific concern is the need to avoid dates of visits. To comply with this requirement, we will *not* request data with specific Visit Date cutoffs. Rather we will request data based on cutoffs of the days since **S**ite **R**andomization **D**ate (hereafter **SRD**). [NOTE: The SRD is randomly drawn within a 2-week window at each Healthcare System and is only known by the Healthcare System. It is used along with the Visit Date to determine the Day of Visit.]

- 1. For each healthcare system, once the SRD is set, the first data submission will include all encounters in the first 30 days of the study (0-30 days).
- 2. For all subsequent data submissions, each data set will contain encounter data for a total 60 days in which there is a 30 day overlap with the previous data submission. The overlap will allow us to catch any missing/updated data in the previous submission.
 - a. 1st data submission: encounters occurring in visit days 0-30
 - b. 2nd data submission: encounters occurring in visit days 0-60
 - c. 3rd data submission: encounters occurring in visit days 30-90
 - d. 4th data submission: encounters occurring in visit days 0-120
 - e. 5th data submission: encounters occurring in visit days 0-150
 - nth data submission: encounters occurring in visit days 30*(n-2) 30*n
- 3. The first data due date for all health care systems is approximately two months after the end of the SRD range. As we have started the trial,

the SRD range is 10/31-11/14/2019, the first data due date is on or before 01/15/2020.

4. The subsequent data due dates will be one month from the previous data due date. Using the above example, the subsequent data due dates will be **02/15/2020**, **03/15/2020**, **04/15/2020**...

DATA REQUIREMENTS

Changes that are new in this version are in red. Some updates have comments.

Data Quality Basics

- 1. Uniqueness of a patient's record is a combination of the following four fields and should be included in all submitted files except Fatalities and Demographics.
 - a. Site_ID (ID for a department in your healthcare system)
 - b. Each Patient has only one unique ID (Research_ID) Hashed MRN
 - c. Arrival_DT Days from trial start to date of ED visit arrival NOT an actual arrival date in ED
 - d. Arrival_Hr number of hours from midnight (local time) to the time of arrival in ED NOT an actual arrival time in ED
- 2. A patient's identifier cannot be changed throughout the study

Upload File and Data Format Required:

- 1. One single .zip file that contains 19 data files in .txt format
- 2. The files correspond to the worksheet in the sample data excel spreadsheet.
- 3. The name of the zip file must be as follows: Embed_HealthcareSystemCode_yyyymmdd. Healthcare System Code

Healthcare System	Code	Example
Yale	10	Embed_10_20200316.zip
University of North Carolina	20	Embed_20_20200316.zip
University of Alabama-Birmingham	30	Embed_30_20200316.zip
Colorado	40	Embed_40_20200316.zip
Baystate	50	Embed_50_20200316.zip

- 4. Pipe ("|")-delimited text file (must have an extension ".txt")
- 5. Naming convention for individual files:

The filenames are as follows: Demographics.txt ED follow up.txt Care teams.txt ED Dx.txt Social Hx.txt PMH.txt ED_CC.txt ED_vitals.txt Labs.txt PTA_Meds.txt ED Meds Rx.txt ED_Meds.txt Bup_Rx.txt Bup_in_ED.txt Naloxone_in_ED.txt OUD_Phen_1_2.txt Total_ED_Encounters. txt (new 4th column – described at the end of this file) RID Merge.txt Daily_COVID 19.txt (new table – described at the end of this file) Fatalities.txt (Exclude from the list) To upload into Yale's data validation tool, zip all the files (Embed_SiteId_yyyymmdd .zip) and upload.

- 6. The first row should contain the headers for the fields
- 7. Please do not include double quote, **nor "**|**"** in the text value
- 8. For missing and NULL values, use code -99999
- 9. Empty files should have respective column headers. Rest of the file should be left empty. A row of just '|' pipes will also give an error message during validation.
- 10. Field order, format and example:

	EHR DATA							
Order	Field Description	Header/Field Name	Data Type	Example	comments			
			Demograph	ics.txt				
1	HealthcareSyste mCode	Healthcare_Syst em_ID	Number (Integer)	20	Will be based on 2 digit Healthcare System Code			
2	Research ID	Research_ID	text	0x5710A983C8 8283F88A275F 69728F7273D4 277BFD	Hashed MRN			
3	Age	Age_demo	Number (Integer)	25	18-85, if >85, then age=100; if age is missing then age= -99999			
4	Gender	Gender	text	Male	Pls map the value to one of: Male/Female			
5	Race	Race	text	White or Caucasian	White or Caucasian;Black or African American; American Indian or Alaska Native; Asian; Native Hawaiian or Other Pacific Islander; Other; Patient Refused; Unknown; Hispanic/Latino; Other/Not Listed; Native Hawaiian; Other Pacific Islander;			
6	Ethnicity	Ethnicity	text	Hispanic or Latino	NON-HISPANIC; HISPANIC OR LATINO; UNKNOWN; PATIENT REFUSED;			
		T	ED_follow_	•				
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID			
2	Research ID	Research_ID	text	0x167C937CBF DD59106C827A EFB3E87ACF72 A65376				

	Days from trial							
3	, start to date of ED visit arrival	Arrival_DT	Number (Integer)	63	Make sure value falls between 0-700			
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	9	Make sure value falls between 0-24			
5	Sequential number of ED Follow-up instruction	ED_FUP_LINE	Number (Integer)	2				
6	Identifier of provider doing ED follow up	ED_FUP_PROVI DER_ID	text	45846				
7	Follow-up practice Identifier	FUP_Practice_I D	Number (Integer)	104010037				
8	ED department ID for follow up	ED_FUP_DEPT_I D	Number (Integer)	101010001				
9	Follow-up contact address and telephone	ED_FUP_CONTA CT	text	99 Example St xxxxx, Rhode Island 02891- 2961 111-111- 1111				
10	Summary of follow up instructions	ED_FUP_SUMM ARY	text	Schedule an appointment as soon as possible for a visit in 1 day				
11	Patient instructions on how to contact Follow-up department	ED_FU_How	text	Make Appointment				
	Care_teams.txt							
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID			
2	Research ID	Research_ID	text	0xBF9608CB9C 896E2B546104 F3B64966C97C A28463				
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	54	Make sure value falls between 0-700			

4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	15	Make sure value falls between 0-24		
5	Provider ID	Prov_ID	text	15849			
6	Clinician title (MD, MD PhD, PA, RN, APRN)	CLINICIAN_TITL E	text	MD	MD, MD PhD, PA, RN, APRN		
7	Role within treatment team (nurse, resident, etc)	Team_relation	text	Physician Resident			
8	Attending provider ID (Remove)	BILL_ATTEND_P ROV_ID (Remove)	Text (Remove)	22495 (Remove)	Replace with 'Attending_Prov_ID'		
8	Any attending physician associated with each encounter	Attending_Prov _ID	text	23145	If there are multiple clinical attendings during an encounter, list all.		
9	Is the provider a resident?	IS_RESIDENT	Number (Integer)	1	1 = Yes, 2 = No		
			ED_Dx.t	xt			
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID		
2	Research ID	Research_ID	text	0xD1CB013EFC 0168B18B5BB1 51E6359530E7 2A2B88			
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	70	Make sure value falls between 0-700		
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	14	Make sure value falls between 0-24		
5	ED Diagnosis code	ED_diagnosis_c ode	text	F10.929			
6	ED diagnosis description	ED_DX_name	text	Lower abdominal pain, unspecified			
	Social_Hx.txt						

1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0xDDAE11D15 D1AD4E19B826 47D71E3FA6B8 E8A7B28	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	70	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	14	Make sure value falls between 0-24
5	Illicit drug user at time of arrival in ED	ILL_DRUG_USER	Number (Integer)	1	Values: 1 = Yes 2 = No 3 = Not asked 4 = Defer
6	Frequency of drug use at time of arrival in ED	illicit_drug_f req	Number (Integer)	2	removed
7	Current social history at time of arrival in ED	IV_DRUG_USER	Number (Integer)	1	1 = Yes, 2 = No
8	Days from trial start to Date Social history was entered	SHx_Contact_Dt	Number (Integer)	-23	
			PMH.tx	t	
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0xEBB544B880 F85783A97531 29E6346C4813 A43A4D	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	77	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	13	Make sure value falls between 0-24

6	PMH diagnosis code at time of arrival in ED PMH diagnosis description at time of arrival in ED PMH comments	PMH_Diagnosis _Code PMH_DX_NAM E	text text	R11.2, Z98.890 Aortic aneurysm (HC Code)				
7	include OUD reference?	PMH_comment s_OUD	Number (Integer)	1	1 = Yes, 2 = No			
8	Days from trial start to PMH date of entry	PMH_contact_d t	Number (Integer)	-2424				
			ED_CC.t	xt				
1	Site ID	Site_ID	number	20	Will be based on 2 digit Site ID			
2	Research ID	Research_ID	text	0x1BF580017D D63D2CB2CF16 32F8EC334576 8D4A41				
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	92	Make sure value falls between 0-700			
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	4	Make sure value falls between 0-24			
5	ED chief complaint ID	ENC_REASON_I D	Number (Integer)	160302				
6	ED chief complaint description	ENC_reason_na me	text	NECK PAIN				
7	Sequential number of chief complaints	ENC_reason_lin e	Number (Integer)	3				
	ED_Vitals.txt							
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID			
2	Research ID	Research_ID	text	0xA073AD3260 21AD9346B695 2899C7CF5B04 422D80				

	Days from trial		Number		Make sure value falls between
3	start to date of ED visit arrival	Arrival_DT	(Integer)	29	0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	3	Make sure value falls between 0-24
5	ED BP systolic	BP_SYSTOLIC	Number (Integer)	145	Value falls between 56-225
6	ED BP diastolic	BP_DIASTOLIC	Number (Integer)	88	Value falls between 25-125
7	ED Pulse	PULSE	Number (Integer)	77	Value falls between 35-200
8	ED Respirations	RESPIRATIONS	Number (Integer)	18	Value falls between 0-35
9	ED Temperature	TEMPERATURE	Number (decimal)	97.2	Value falls between 91-105
			Labs.tx	t	
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0xB634A5CEFC 22115B7B15FA DD5BA08AD03 CC5A4CE	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	48	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	17	Make sure value falls between 0-24
5	Lab test name	Lab_COMMON_ NAME	text	OXYCODONE SCREEN, URINE, NO CONF.	
6	Lab test result	Lab_Value	text	Negative	
7	Lab test comment	Lab_Comment	text	6- acetylmorphine is a heroin metabolite. While its absence (in the presence of	

				opiates) does not rule out heroin use, its presence is regarded as an indication of illicit heroin use. <10 ng/mL = Negative	
			PTA_Meds	s.txt	
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0x9AB5D0199D FB7111D1D0C9 FB0B3CC84161 7A95BE	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	30	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	5	Make sure value falls between 0-24
5	Active medication name	PTA_Med_Nam e	text	OLANZAPINE 5 MG TABLET	
6	Active medication quantity taken	PTA_med_QUA NTITY	text	10 tablet	
7	Active medication quantity taken - number	PTA_med_Quan t_Numb	Number (Decimal)	15.0	
8	Active medication quantity taken - type	PTA_med_Quan t_type	Text	tablet	
9	Active medication refills	PTA_med_REFIL LS	Number (Integer)	2	
10	Days from trial start to Date the	PTA_med_ORD ER_INST_DT	Number (Integer)	-1828	

	ordor									
	order was									
	placed for the									
	past med prior to arrival									
	to arrival									
	ED_Meds_Rx.txt									
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID					
2	Research ID	Research_ID	text	0xDEC2C79DAC 2536DEA42871 1E762E211786 29961E						
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	9	Make sure value falls between 0-700					
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	10	Make sure value falls between 0-24					
5	Days from trial start to Date BUP was ordered in ED	ED_Rx_Orderin g_dt	Number (Integer)	44						
5	Pharmacy class of medication prescribed	ED_Rx_order_cl ass_name	text	Normal						
6	ED Rx medication name	ED_Rx_Name	text	MECLIZINE 25 MG TABLET						
7	ED Rx medication strength	ED_Rx_strength	text	500 mg						
8	ED Rx medication quantity prescribed	ED_Rx_QUANTI TY	text	14 tablets						
9	ED Rx medication quantity prescribed - number	ED_Rx_Quant_ Numb	Number (decimal)	.35						
10	ED Rx medication quantity	ED_Rx_Quant_T ype	text	Tablet						

	prescribed –				
	type				
	ED Rx				
11	medication	ED_Rx_REFILLS	Number	0	
	number of refills		(Integer)	0	
	Identifier of				
	provider	ED_Rx_PRESC_P			
12	prescribing ED	ROV_ID	text	5907	
	Rx medication				
	Identifier of				
13	provider	ED_Rx_ORD_PR	toyt	66494	
15	ordering ED Rx	OV_ID	text	00494	
	medication				
			Bup_Rx.t	txt	
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0x9E3E6DAB7E 71393FFF5EFC 2AB3DA841B8 904BEF8	
	Days from trial		Number		Make sure value falls between
3	start to date of	Arrival_DT	(Integer)	12	0-700
	ED visit arrival		(
	Number of hours from		Number		Make sure value falls between
4	midnight to the	Arrival_Hr	(Integer)	17	0-24
	time of arrival		(integer)		0-24
	Days from trial				
	start to Date				
5		BUP_Rx_Orderi	Number	12	
	prescribed in ED	ng_dt	(Integer)		
				BUPRENORPHI	
	BUP Rx			NE 8 MG-	
6	medication	BUP_Rx_Descri ption	text	NALOXONE 2 MG	
	name			SUBLINGUAL	
				FILM	
				Place 4 tablets	
				(8 mg total)	
7	BUP RX Sig	BUP_Rx_sig	text	under the	
				tongue daily	
				for 3 days	

					1
8	BUP Rx medication strength	BUP_Rx_strengt h	text	8 mg	
9	BUP Rx medication quantity prescribed	BUP_Rx_QUAN TITY	text	12 tablet	
10	BUP Rx medication quantity prescribed - number	BUP_Rx_QUAN TITY_Numb	Number (Integer)	3	
11	BUP Rx medication quantity prescribed – type	BUP_Rx_Quanti ty_type	text	Each	
12	BUP Rx medication number of refills	BUP_Rx_REFILL S	Number (Integer)	0	
13	Identifier of provider Authorizing BUP Rx	BUP_Rx_AUTHR ZING_PROV_ID	text	13971	
14	Identifier of provider prescribing BUP Rx	BUP_Rx_ORD_P ROV_ID	text	8097	
			ED_meds	.txt	
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0x613EA29E3B FF0ED7821D26 A7763A970729 BF87EE	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	70	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	14	Make sure value falls between 0-24

		ſ	1	1	1
5	Sequential number of meds given in ED	ED_med_line	Number (Integer)	1	
6	Days from trial start to Date medication was ordered in ED	ED_med_Orderi ng_Dt	Number (Integer)	6	between Arrival_dt and Discharge_dt
7	Time medication was administered in ED	ED_Med_time	Number (Integer)	7	
8	Medication name ordered in ED	ED_Med_descri ption	text	SODIUM CHLORIDE 0.9 % BOLUS (NEW BAG)	
9	ED Medication strength	ED_med_streng th	text	60 MG	
10	Identifier of provider prescribing ED medication	ED_MED_PRESC _PROV_ID	text	56801	
11	Identifier of provider ordering ED medication	ED_med_ORD_ PROV_ID	text	S0002135	
12	Action taken on the ED medication	ED_med_MAR_ action	text	Given	
			Bup_in_ED).txt	
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID
2	Research ID	Research_ID	text	0xD127D85E57 00019D4B031E 21AC7E2D4FBE A9B1EE	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	47	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	9	Make sure value falls between 0-24

	· ·	ſ		1	1		
5	Sequential number of BUP given in ED	ED_BUP_line	Number (Integer)	1			
6	Days from trial start to Date BUP was ordered in ED	ED_BUP_Orderi ng_Dt	Number (Integer)	36			
7	Time BUP medication was administered in ED	ED_BUP_time	Number (Integer)	4			
8	BUP Medication name ordered in ED	ED_BUP_Descri ption	text	BUPRENORPHI NE 2 MG- NALOXONE 0.5 MG SUBLINGUAL TABLET			
9	ED BUP Medication strength	ED_BUP_streng th	text	8 MG			
10	Identifier of provider prescribing BUP medication in ED	ED_BUP_PRESC _PROV_ID	text	1632			
11	Identifier of provider ordering BUP medication in ED	ED_BUP_ORD_P ROV_ID	text	49725			
12	Action taken on the BUP medication in ED	ED_BUP_MAR_ action	text	Given			
	Naloxone_in_ED.txt						
1	Site ID	Site_ID	number	20	Will be based on 2 digit SiteID		
2	Research ID	Research_ID	text	0xCFB04780A1 A61469255707 53755F71B177 A30969			

3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	86	Make sure value falls between 0-700	
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	8	Make sure value falls between 0-24	
5	Sequential number of Naloxone given in ED	ED_Nal_line	Number (Integer)	1		
6	Days from trial start to Date Naloxone was ordered in ED	ED_Nal_Orderin g_Dt	Number (Integer)	35		
7	Time Naloxone medication was administered in ED	ED_Nal_time	Number (Integer)	2		
8	Naloxone Medication name ordered in ED	ED_Nal_Descrip tion	text	NALOXONE 0.4 MG/ML INJECTION SOLUTION		
9	ED Naloxone Medication strength	ED_Nal_strengt h	text	0.4 mg/mL		
10	Identifier of provider prescribing Naloxone medication in ED	ED_Nal_PRESC_ PROV_ID	text	13980		
11	Action taken on the Naloxone medication in ED	ED_Nal_MAR_a ction	text	ED Dispense ONLY		
	OUD_Phen_1_2.txt					
1	ED site unique identifier	Site_ID	number	20	Will be based on 2 digit SiteID 11-55 or 90	
2	Research_ID	Research_ID	text	0xCFB04780A1 A61469255707		

				53755F71B177	
				A30969	
3	Days from trial start to date of ED visit arrival	Arrival_DT	Number (Integer)	86	Make sure value falls between 0-700
4	Number of hours from midnight to the time of arrival	Arrival_Hr	Number (Integer)	8	Make sure value falls between 0-24
5	OUD Phenotype 1 or 2	OUD	text	Phen_1	Values: Phen_1 or Phen_2
6	Length of ED visit in minutes	Visit_len_Min	Number (Integer)	241	>0
7	Age_admission	Age_admission	Number (Integer)	29	18-85, if >85, then age=100; if age is missing then age= -99999
8	Chief Complaint -overdose, detox, withdrawal	сс	1=Yes, 2=No	1	1=Yes, 2=No
9	Chief Complaint - "heroin", "opiate", "opioid"	CC_Opioid	1=Yes, 2=No	1	1=Yes, 2=No
10	Chief Complaint -"narcan" or "naloxone"	CC_Narcan	1=Yes, 2=No	1	1=Yes, 2=No
11	Chief Complaint -"alcohol" or "ETOH"	СС_ЕТОН	1=Yes, 2=No	1	1=Yes, 2=No
12	Patient encounter diagnosis of all ICD-10 "F11" or one or more of ('T40.0', 'T40.1', 'T40.2', 'T40.3', 'T40.4', 'T40.5', 'T40.6')	OUD_Dx	1=Yes, 2=No	1	1=Yes, 2=No
13	Patients on pharm class and subclass - see note	On_CS_Med	1=Yes, 2=No	1	1=Yes, 2=No

14	Number of prescriptions within the past 90 days and >= 15 pills, >=75cc, or >=5 patch	CSMed_refills	Integer	1	
15	Narcan prescribed during the encounter where Generic name = 'naloxone HCl' and prescribed as an inpatient medication during the encounter	Narcan_Inpatie nt	1=Yes, 2=No	1	1=Yes, 2=No
16	Narcan prescribed as an outpatient prescription at the encounter (Generic name = 'naloxone HCl')	Narcan_Outpati ent	1=Yes, 2=No	1	1=Yes, 2=No
17	Patients who were prescribed Narcan within the past 24 months (Generic name = 'naloxone HCl')	Narcan24Mo	1=Yes, 2=No	1	1=Yes, 2=No
18	OUD diagnosis on Problem List	PL_OUD_Dx	1=Yes, 2=No	1	1=Yes, 2=No
19	Days from Trial start to Date OUD diagnosis info was entered on PL	PL_OUD_DX_DT	Number (Integer)	-774	difference between Study Start Date and Date OUD diagnosis info was entered on PL
20	Past medical history of specific dx - see note	РМН	1=Yes, 2=No	2	

			1		,
21	Epic discrete data IV_DRUG_USER _YN = Y entered on or prior to the encounter	III_Drug	1=Yes, 2=No	2	
22	Patient discharge instructions with one of patient instruction title (see below)	DC_inst	1=Yes, 2=No	2	
23	Urine drug screen positive for opiates (yes/no)	Opiate_Labs	1=Yes, 2=No	2	lab results value that contains word positive and value or comment contains words – opioid, opiate, fentanyl, heroin, hydrocodone, hydromorphone, morphine, opium, oxycodone
24	Urine drug screen positive for oxycodone (yes/no)	Oxycodone_lab	1=Yes, 2=No	2	
25	Insurance Info	Fin_class	text	Medicaid	Medicaid, Medicare, Self-Pay, Specific insurance, etc
26	Total ED visits prior to this visit since start of the study	Total_ED_visits	Number (Integer)	3	
27	Days from trial start to Date of last inpatient admission	Last_Inp_Adm_ DT	Number (Integer)	33	
28	Days from trial start to Date of last psychiatric inpatient admission	Last_Psy_Adm_ DT	Number (Integer)	5	
29	Presence of ETOH dx	ETOH_Dx	1=Yes, 2=No	1	
30	Presence of "benzo" dx	Benzo_Dx	1=Yes, 2=No	2	

	ls patient				
31	ls patient currently on MOUD	MOUD	1=Yes, 2=No	2	
32	Problem list states that patient is treated with BUP or Suboxone or Methadone or Naloxone	PL_MOUD	1=Yes, 2=No	2	
33	Days from trial start to Date OUD_Tx was entered on problem list	PL_MOUD_DT	Number (Integer)	-728	
34	Patient left without being seen	LWBS	1=Yes, 2=No	2	
35	Patient is pregnant	Pregnant	1=Yes, 2=No	2	
36	Whether or not the EMBED app was launched by the provider or not	Intervention	1=Yes, 2=No	2	
37	This metric is to measure which CarePathway option was chosen	Path_ID	Number Options 1 -7	3	If the provider abandons the process or never accesses the intervention, then this measure will be -99999
38	The clinical attending of record	Attending_Of_R ecord_Prov_ID	text	23145	If there were multiple attending during the encounter, this is the clinical attending of record for the encounter. In the Yale system, this is the first clinical attending, but this could vary in other systems based on their local practice patterns

		Τα	otal_ED_Enc	ounters	
1	Department ID	Site_ID	Number (Integer)	13	11-55 or 90
2	Days from trial start to the date	The_Day	Number (Integer)	78	
3	Total ED encounters for that day	Num_Of_Encou nters	Number (Integer)	8	
4	Total ED encounters for that day	Num_Of_Admit s	Number (Integer)	8	
			RID_Mer	ge	
1	Healthcare_Syst em_ID	Healthcare_Syst em_ID	Number Integer	10	10,20,30,40 or 50
2	Research ID of the merged subject from the previous submission	Old_Research_I D	text	0x5710A983C8 8283F88A275F 69728F7273D4 277BFD	Hashed MRN
3	The Research ID that is newly assigned to the subject	New_Research_ ID	text	0x5710A983C8 8283F88A275F 69728F7273D4 279FBA	Hashed MRN
			Daily_COVI	D_19	
1	Department ID	Site_ID	Number (Integer)	13	11-55 or 90
2	Days from trial start to the date	The_Day	Number (Integer)	78	
1	Count of COVID_19 +ve inpatient admissions	Admission_Ct	Number Integer	12	
2	Count of COVID_19 +ve inpatient deaths	Death_Ct	Number Integer	2	
3	Count of COVID_19 +ve inpatient discharge	Discharge_Ct	Number Integer	5	

	Fatalities.txt (Excluded from the list)						
1	Department ID	Site_ID	number	13	11 55 or 90		
2	Total patients in the files	Total_Pt	number	9150			
3	Total visits in the files	Total_visit	number	17294			
4	Total Phenotype 1	Phen1	number	18			
5	Total Phenotype 2	Phen2	number	6			
6	Total Deaths	Death	number	1			

DATA SUBMISSION (for sites)

- 1. The format and data-type is being provided to each Site
- 2. The online data validation tool will accept only zipped files with .zip extension. This zipped folder should contain 19 text files with extension .txt. For filename and file format specs refer to **Upload File and Data Format Required** section.
- 3. If a field does not have a value (NULL), populate with -99999. Please **DO NOT** remove any headers.

Two new tables will be added to Version 4 of EMBED Data Submission Specification

(1) Total_ED_Encounters

- To track the total volume of the ED patient flow. This is not related to Phen 1 & 2. Just the total number of patients coming in through the ED doors. We are not looking for individual patient identity.
- This new table which will be part of next submission will record daily total ED encounters. The table should contain **Site_Id**, **The_Day** (the day from trial start) and **Num_Of_Encounters**. A separate query is needed to generate the data for this table.

Total_ED_Encounters

Site_Id	The_Day	Num_Of_Encounters

• Pipe '|' de-limited .txt file - Total_ED_Encounters.txt

(2) RID_MERGE

Record merge for patients that have more than one research IDs

• We are adding a new table **RID_Merge** to record all the research IDs that need to be merged. It should contain **Healthcare_System_ID**, **Old_Research_ID** that maps to a new research ID, and the **New_Research_ID**.

RID_Merge

Healthcare_System_ID	Old_Research_ID	New_Research_ID

- Each site needs to include the additional table (may be empty in most cases) to report the records that need to be merged. This table won't be part of data extraction from EHR. Must be built manually.
- **RID_Merge** table submitted with each submission should contain the mappings for the Research_Id merges for that submission.
- If a to-be-merged research ID is missing in RID_MERGE table, there will be extra patient record(s) in potentially all the tables for an existing patient.
- Pipe '|' de-limited .txt file RID_Merge.txt

EMBED Version 5 Updates

- (3) One additional column in **Total_ED_Encounters**
- (4) One new table **Daily_COVID_19**
- (1) Column '<u>Num Of Admits</u>' Total admissions from ED for that day. This is the 4th column in table Total_ED_Encounters.

Total_ED_Encounters

Site_Id	The_Day	Num_Of_Encounters	Num_Of_Admits

(2) Daily COVID 19

To track COVID_19 admissions. The table will record daily COVID_19 admission, discharge, and death.

• Here admission includes both admits and observation admissions by CMS criteria.

- We are not looking for individual patient identity.
- COVID positive admission implies a positive COVID test 14 days before until 3 days after the admission date.
- This new table will be part of Submission 11 due November 15th. The table should contain
- **Site_Id** (the 2-digit Id)
- **The_Day** = The day from trial start
- **Admission_Ct** = Count of COVID_19 +ve inpatient admissions
- **Death_Ct** = Count of COVID_19 +ve inpatient deaths
- **Discharge_Ct** = Count of COVID_19 +ve inpatient discharge

A separate query is needed to generate the data for this table.

Daily_COVID_19

Site_Id	The_Day	Admission_Ct	Death_Ct	Discharge_Ct

• Pipe '|' de-limited .txt file – Daily_COVID_19.txt