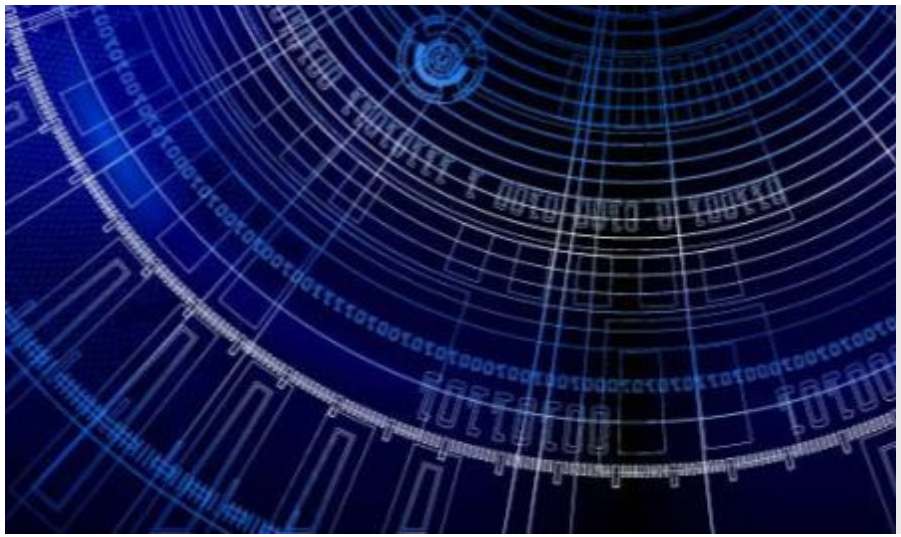


THINKING OUTSIDE THE BOX: SDTM MAPPING IN REAL LIFE

14Feb2017 24th German User Group Meeting Eschborn / Clinipace

Petra Rein

PAREXEL®

YOUR JOURNEY. OUR MISSION.®

AGENDA:

MAPPING IN REAL LIFE

OR

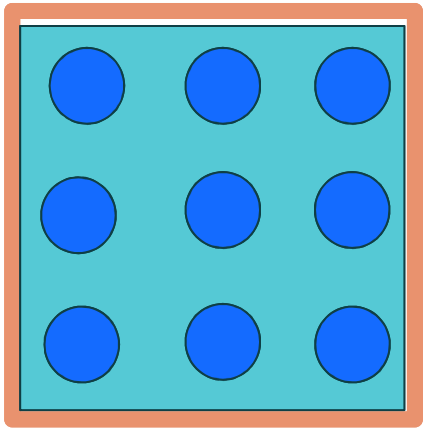
HOW TO DEAL WITH NON FITTING CRFs

- **Thinking outside the box I**
- **How To**
- **Examples**
  - FA, SUPPLEMENTAL or other option?
  - Rescreening
  - Investigator information
- **Thinking outside the box II**

PAREXEL

THINKING OUTSIDE THE BOX I

- A box
- Draw max. 4 straight lines
- Catch all 9 dots
- Do not lift the pen and do not use the same line twice or more
- There might be more than one solution



- CDISC
- SDTMIG and SDTM
- Insert all information from CRF
- Do not violate the rules (FDA, CDISC)
- Everything allowed when within scope of implementation guide

Most Case Report Forms (CRFs) contain information that do not fit easily or at all into the standards from CDISC.

HOW TO GET STARTED

PAREXEL

A THREE-STAGE PLAN TO GET STARTED:

1.

Who needs the information (statistican, the FDA, sponsor, …)? Should it be stored, can it be dropped?

2.

What is the purpose of the information?

- background information
- additional (useful) relationship
- (better) organization / structuring of data
- details for historical data

3.

Where to store the information best in main domain as --CAT, --SCAT, several --ID´s or other possible variables per SDTM?

- in Supplemental Domain
- in Findings About
- in Custom Domain

EXAMPLES:
REAL LIFE MAPPING

PAREXEL

EXAMPLE 1: FA, SUPPLEMENTAL OR OTHER OPTIONS?

Prior Systemic Cancer Therapy

Therapy Intent
- NEO-ADJUVANT ☐
- ADJUVANT ☐
- PALLIATIVE ☐
- MAINTENANCE ☐
- SYNCHRONOUS CHEMORADIOTHERAPY ☐
- OTHER ☐

If other, specify _____

Line of therapy
- 1ST LINE ☐
- 2ND LINE ☐
- 3RD LINE ☐
- 4TH LINE ☐
- NA (Not Applicable) ☐

Date first dose administered _____

Date last dose administered _____

Subject's best response
- CR (Complete Response) ☐
- PR (Partial Response) ☐
- SD (Stable Disease) ☐
- PD (Progressive Disease) ☐
- NE (NOT EVALUABLE) ☐
- NA (NOT APPLICABLE) ☐

Not done ☐

If subject progressed following treatment with this regimen, enter date of progressive disease _____

Is there an additional regimen ?
- Yes ☐
- No ☐

Prior Systemic Cancer Therapy

Did the patient receive any platinum treatment?
- Yes ☐
- No ☐

Did the patient progress on, or within 12 months of, prior platinum-based treatment?
- Yes ☐
- No ☐

Drug Name: List drugs separately _____

Modified Reported Name _____

Generic/Combogen _____

Medication Class _____

Dose _____

Dose unit _____

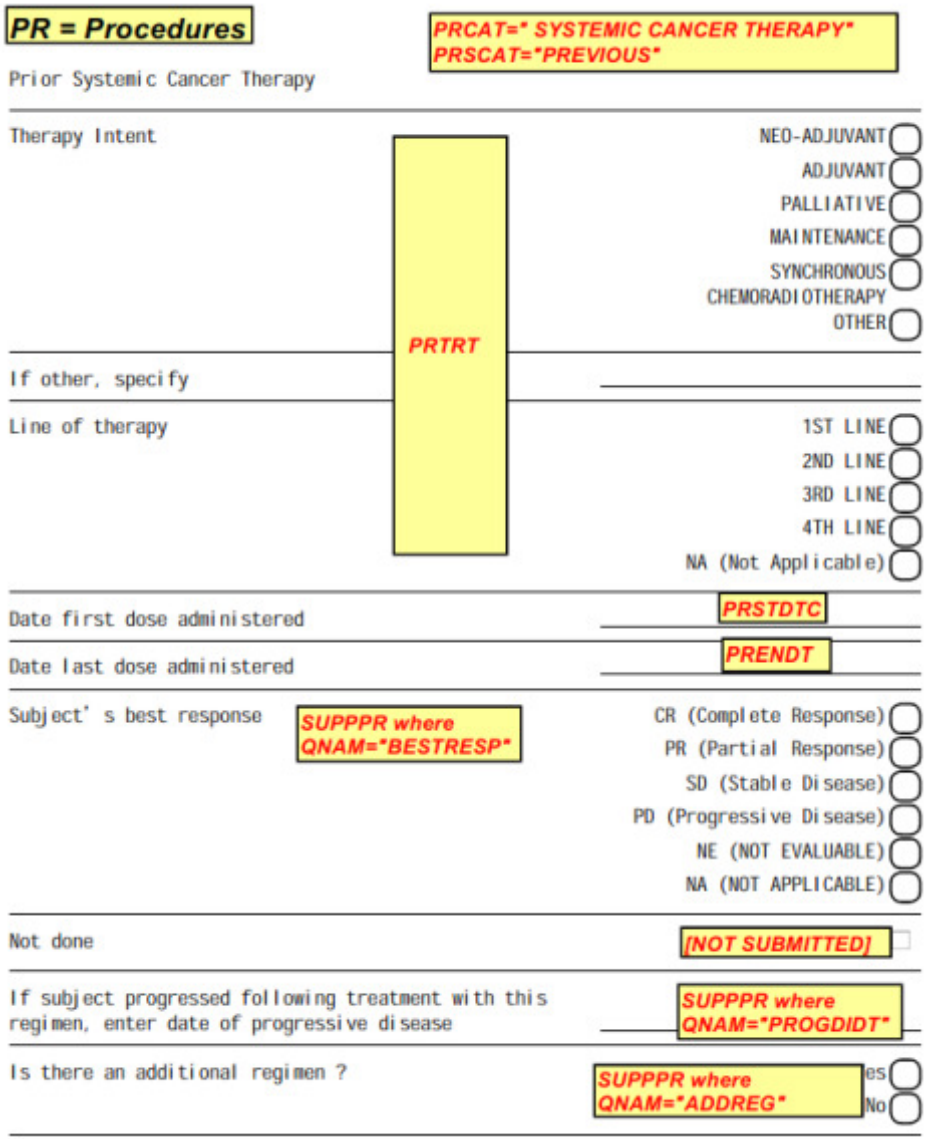
Unknown ☐

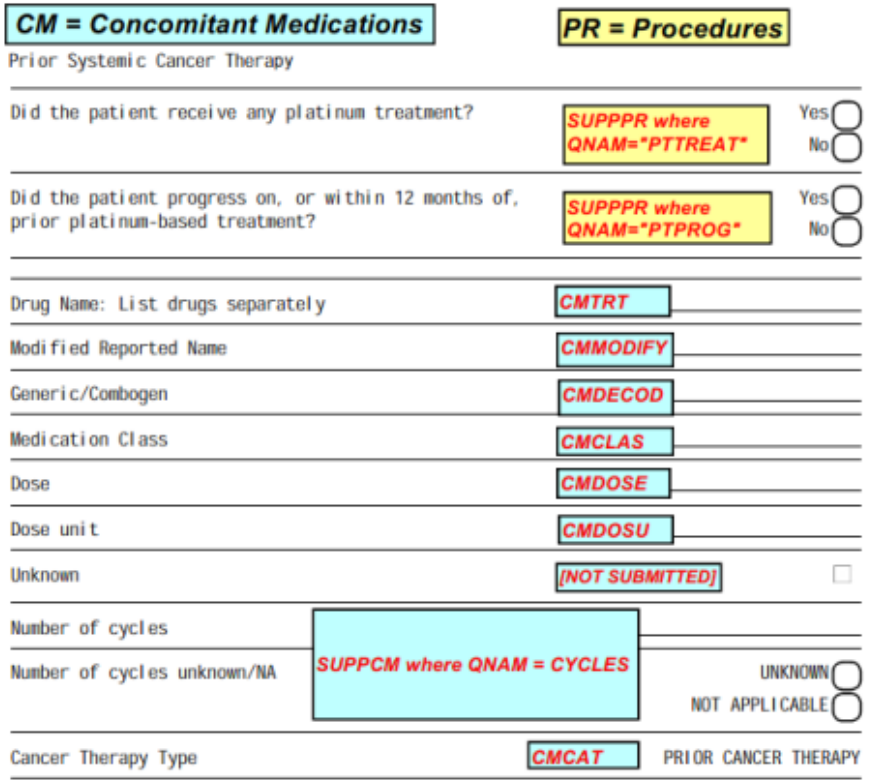
Number of cycles _____

Number of cycles unknown/NA
- UNKNOWN ☐
- NOT APPLICABLE ☐

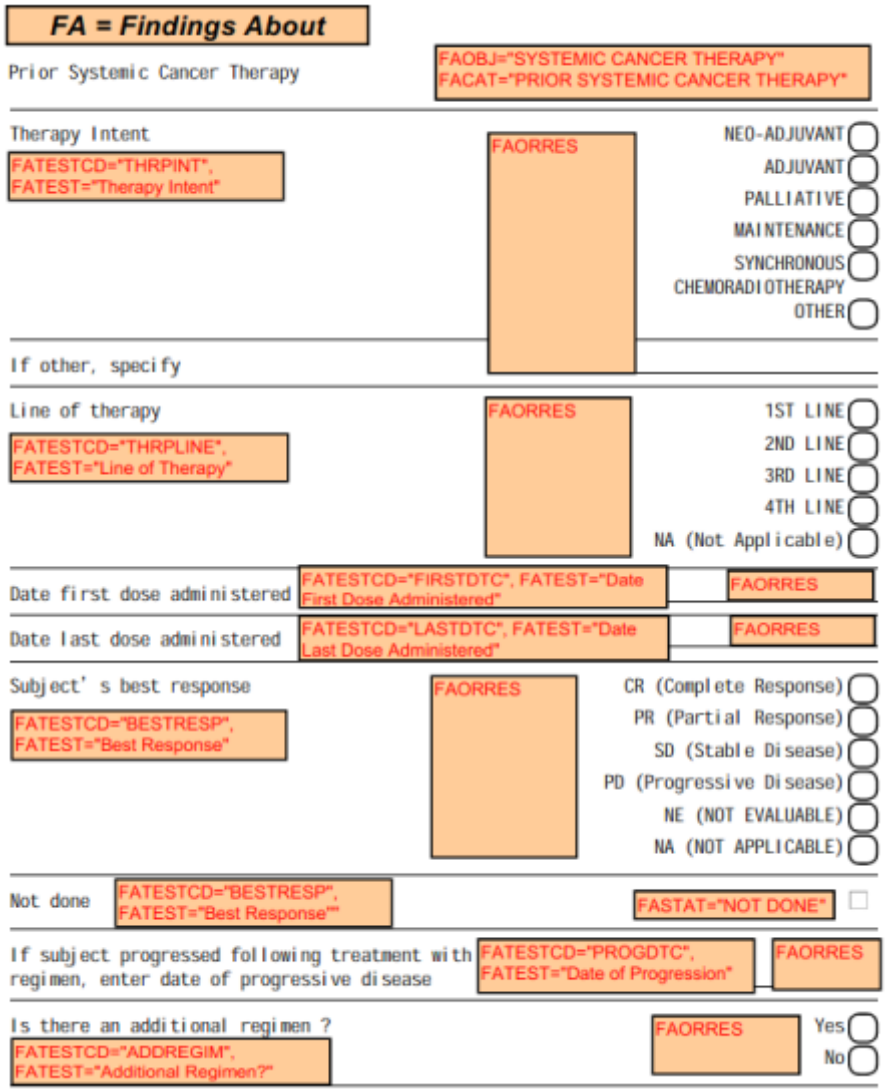
Cancer Therapy Type: PRIOR CANCER THERAPY

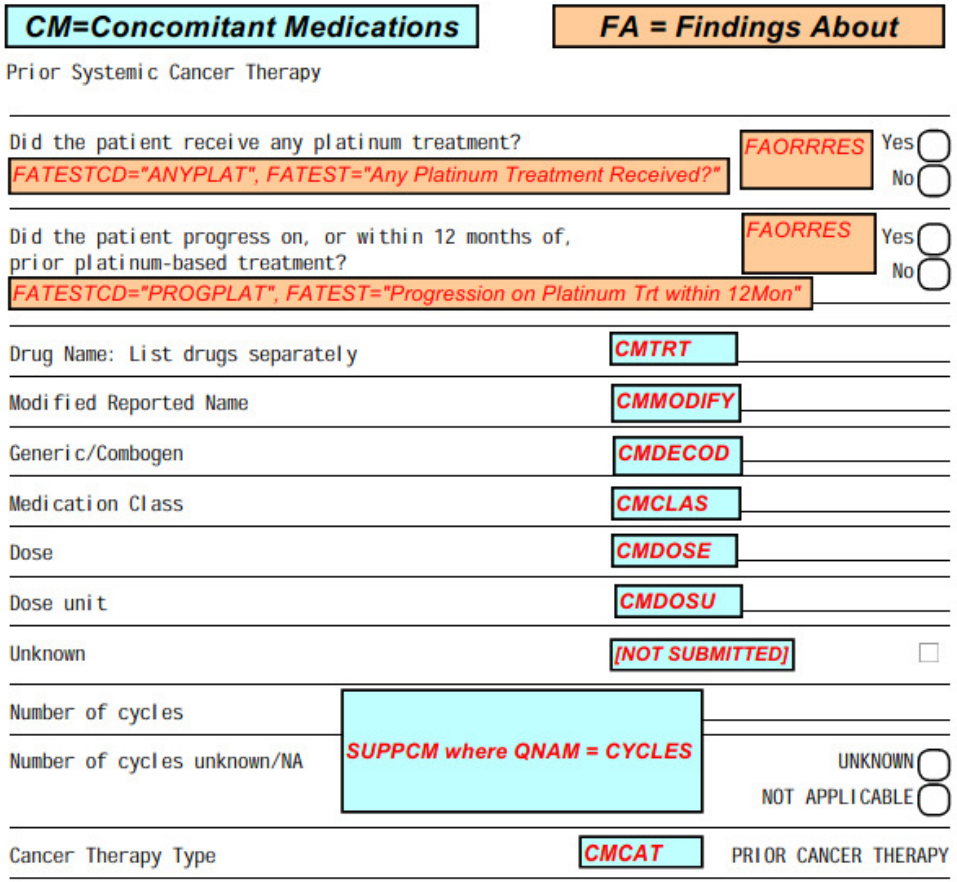
EXAMPLE 1: FA, SUPPLEMENTAL OR OTHER OPTIONS? (CONT. I)





EXAMPLE 1: FA, SUPPLEMENTAL OR OTHER OPTIONS? (CONT. II)





EXAMPLE 2: RESCREENING

Requirements

- Subject may be re-screened three times before excluded / included in the study.
- New patient number for a new re-screening.
- All information should be kept with one patient number in the end.

Challenges

- Keep consistent patient number for all related information.
- Keep „unplanned/planned“ re-screening visits.
- Do not violate FDA/CDISC rules.

Solutions

- Several models of mapping are possible.

EXAMPLE 2: RESCREENING (CONT. I)

DM

STUDYID	DOMAIN	USUBJID	SUBJID	RFSTDTC	RFENDTC	RFXSTDTC	RFXENDTC	RFICDTC	RFPENDTC	DTHDTC	DTHFL	SITEID
TREATM-XX	DM	TREATM-XX-4001001	4001001	2016-08-13T10:10	2016-08-13T10:25	2016-08-13T10:10	2016-08-13T10:25	2016-08-01				400
TREATM-XX	DM	TREATM-XX-4001003	4001003	2016-10-03T14:00	2016-10-06T16:13	2016-10-03T14:00	2016-10-06T16:13	2016-08-02				400
TREATM-XX	DM	TREATM-XX-4001007	4001007	2016-10-05T12:00	2016-10-15T09:05	2016-10-05T12:00	2016-10-15T09:05	2016-09-30		2016-10-27	Y	400
TREATM-XX	DM	TREATM-XX-4001008	4001008					2016-10-02				400

BRTHDTC	AGE	AGEU	SEX	RACE	ETHNIC	ARMCD	ARM	ACTARMCD	ACTARM	COUNTRY	DMDTC	DMDY
1960	56	YEARS	M	WHITE	NOT HISPANIC OR LATINO	TREATM1	Treatment ABC	TREATM1	Treatment ABC	USA	2016-08-01	-12
1963	53	YEARS	M	WHITE	NOT HISPANIC OR LATINO	TREATM2	Treatment XYZ	TREATM2	Treatment XYZ	USA	2016-08-02	-62
1990	26	YEARS	F	BLACK OR AFRICAN AMERICAN	NOT HISPANIC OR LATINO	TREATM2	Treatment XYZ	TREATM2	Treatment XYZ	USA	2016-10-01	-4
1958	58	YEARS	F	ASIAN	NOT HISPANIC OR LATINO	TREATM1	Treatment ABC	NOTTRT	Not Treated	USA	2016-10-02	

SUPPDM

STUDYID	RDOMAIN	USUBJID	IDVAR	IDVARVAL	QNAM	QLABEL	QVAL	QORIG	QEVAL
TREATM-XX	DM	TREATM-XX-4001001			TESTA	Test result at screening	10	CRF	
TREATM-XX	DM	TREATM-XX-4001001			SCRNDT1	Screen Date 1	2016-08-01	CRF	
TREATM-XX	DM	TREATM-XX-4001003			TESTA	Test result at screening	20	CRF	
TREATM-XX	DM	TREATM-XX-4001003			PREVSCN1	Previous Screening Number 1	4001002	CRF	
TREATM-XX	DM	TREATM-XX-4001003			RESCRN1	Rescreening 1	Y	CRF	
TREATM-XX	DM	TREATM-XX-4001003			SCRNDT1	Screen Date 1	2016-08-02	CRF	
TREATM-XX	DM	TREATM-XX-4001003			SCRNDT2	Screen Date 2	2016-10-01	CRF	
TREATM-XX	DM	TREATM-XX-4001007			TESTA	Test result at screening	30	CRF	
TREATM-XX	DM	TREATM-XX-4001007			SCRNDT1	Screen Date 1	2016-10-01	CRF	
TREATM-XX	DM	TREATM-XX-4001008			TESTA	Test result at screening	40	CRF	
TREATM-XX	DM	TREATM-XX-4001008			PREVSCN1	Previous Screening Number 1	4001004	CRF	
TREATM-XX	DM	TREATM-XX-4001008			PREVSCN2	Previous Screening Number 2	4001005	CRF	
TREATM-XX	DM	TREATM-XX-4001008			PREVSCN3	Previous Screening Number 3	4001006	CRF	
TREATM-XX	DM	TREATM-XX-4001008			RESCRN1	Rescreening 1	Y	CRF	
TREATM-XX	DM	TREATM-XX-4001008			RESCRN2	Rescreening 2	Y	CRF	
TREATM-XX	DM	TREATM-XX-4001008			RESCRN3	Rescreening 3	Y	CRF	
TREATM-XX	DM	TREATM-XX-4001008			SCRNDT1	Screen Date 1	2016-10-02	CRF	
TREATM-XX	DM	TREATM-XX-4001008			SCRNDT2	Screen Date 2	2016-10-11	CRF	
TREATM-XX	DM	TREATM-XX-4001008			SCRNDT3	Screen Date 3	2016-10-19	CRF	
TREATM-XX	DM	TREATM-XX-4001008			SCRNDT4	Screen Date 4	2016-10-26	CRF	

EXAMPLE 2: RESCREENING (CONT. II)

STUDYID	DOMAIN	VISITNUM	VISIT	VISITDY	ARMCD	ARM	TVSTRL	TVENRL
TREATM-XX	TV	10	Visit 1 - Screening	-14	TREATM1	Treatment ABC	Start of Screening Epoch	
TREATM-XX	TV	**10.1**	**Visit 1 - Rescreening 1**		TREATM1	Treatment ABC	**Start of Screening Epoch second**	
TREATM-XX	TV	**10.2**	**Visit 1 - Rescreening 2**		TREATM1	Treatment ABC	**Start of Screening Epoch third**	
TREATM-XX	TV	**10.3**	**Visit 1 - Rescreening 3**		TREATM1	Treatment ABC	**Start of Screening Epoch fourth**	
TREATM-XX	TV	20	Visit 2 - Baseline	1	TREATM1	Treatment ABC	Randomization and first treatment	
TREATM-XX	TV	**20.1**	**Visit 2 - Baseline Rescreening 1**		TREATM1	Treatment ABC	**Randomization and first treatment**	
TREATM-XX	TV	**20.2**	**Visit 2 - Baseline Rescreening 2**		TREATM1	Treatment ABC	**Randomization and first treatment**	
TREATM-XX	TV	**20.3**	**Visit 2 - Baseline Rescreening 3**		TREATM1	Treatment ABC	**Randomization and first treatment**	
TREATM-XX	TV	30	Visit 3	7	TREATM1	Treatment ABC	1 week after start of treatment	
TREATM-XX	TV	40	Visit 4	14	TREATM1	Treatment ABC	2 weeks after start of treatment	
TREATM-XX	TV	50	Visit 5	28	TREATM1	Treatment ABC	4 weeks after start of treatment	
TREATM-XX	TV	60	Visit 6	56	TREATM1	Treatment ABC	8 weeks after start of treatment	
TREATM-XX	TV	70	End of Study		TREATM1	Treatment ABC	End of Study	Completion of final visit form
TREATM-XX	TV	10	Visit 1 - Screening	-14	TREATM2	Treatment XYZ	Start of Screening Epoch	
TREATM-XX	TV	**10.1**	**Visit 1 - Rescreening 1**		TREATM2	Treatment XYZ	**Start of Screening Epoch second**	
TREATM-XX	TV	**10.2**	**Visit 1 - Rescreening 2**		TREATM2	Treatment XYZ	**Start of Screening Epoch third**	
TREATM-XX	TV	**10.3**	**Visit 1 - Rescreening 3**		TREATM2	Treatment XYZ	**Start of Screening Epoch fourth**	
TREATM-XX	TV	20	Visit 2 - Baseline	1	TREATM2	Treatment XYZ	Randomization and first treatment	
TREATM-XX	TV	**20.1**	**Visit 2 - Baseline Rescreening 1**		TREATM2	Treatment XYZ	**Randomization and first treatment**	
TREATM-XX	TV	**20.2**	**Visit 2 - Baseline Rescreening 2**		TREATM2	Treatment XYZ	**Randomization and first treatment**	
TREATM-XX	TV	**20.3**	**Visit 2 - Baseline Rescreening 3**		TREATM2	Treatment XYZ	**Randomization and first treatment**	
TREATM-XX	TV	25	TV1	3	TREATM2	Treatment XYZ	3 days after start of treatment	
TREATM-XX	TV	30	Visit 3	7	TREATM2	Treatment XYZ	1 week after start of treatment	
TREATM-XX	TV	35	TV2	10	TREATM2	Treatment XYZ	10 days after start of treatment	
TREATM-XX	TV	40	Visit 4	14	TREATM2	Treatment XYZ	2 weeks after start of treatment	
TREATM-XX	TV	50	Visit 5	28	TREATM2	Treatment XYZ	4 weeks after start of treatment	
TREATM-XX	TV	60	Visit 6	56	TREATM2	Treatment XYZ	8 weeks after start of treatment	
TREATM-XX	TV	70	End of Study		TREATM2	Treatment XYZ	End of Study	Completion of final visit form

EXAMPLE 2: RESCREENING (CONT. III)

DOMAIN	USUBJID	DSSEQ	DSGRPID	DSTERM	DSDECOD	DSCAT	DSSCAT	VISITNUM	VISIT	EPOCH	DSDTC	DSSTDTC
DS	TREATM1-XX-4001001	1		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10	Visit 1 - Screening			2016-08-01
DS	TREATM1-XX-4001001	2		RANDOMIZED	RANDOMIZED	PROTOCOL MILESTONE		20	Visit 2 - Baseline			2016-08-13
DS	TREATM1-XX-4001001	3		COMPLETED	COMPLETED	DISPOSITION EVENT	END OF STUDY	70	End of Study	TREATMENT		2016-10-08
DS	TREATM1-XX-4001003	1		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10	Visit 1 - Screening			2016-08-02
DS	TREATM1-XX-4001003	2	SCRNFAIL 1	SCREEN FAILURE	SCREEN FAILURE	DISPOSITION EVENT	END OF STUDY	70	End of Study	SCREENING		2016-08-02
DS	TREATM1-XX-4001003	3		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10.1	Visit 1 - Rescreening 1			2016-10-01
DS	TREATM1-XX-4001003	4		RANDOMIZED	RANDOMIZED	PROTOCOL MILESTONE		20.1	Visit 2 - Baseline Rescreening 1			2016-10-03
DS	TREATM1-XX-4001003	5		WITHDRAWAL BY SUBJECT	WITHDRAWAL BY SUBJECT	DISPOSITION EVENT	END OF STUDY	70	End of Study	TREATMENT	2016-10-10	2016-10-10
DS	TREATM1-XX-4001007	1		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10	Visit 1 - Screening			2016-09-30
DS	TREATM1-XX-4001007	2		RANDOMIZED	RANDOMIZED	PROTOCOL MILESTONE		20	Visit 2 - Baseline			2016-10-05
DS	TREATM1-XX-4001007	3		DEATH	DEATH	DISPOSITION EVENT	END OF STUDY	70	End of Study	TREATMENT	2016-10-27	2016-10-27
DS	TREATM1-XX-4001008	1		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10	Visit 1 - Screening			2016-10-02
DS	TREATM1-XX-4001008	2	SCRNFAIL 1	SCREEN FAILURE	SCREEN FAILURE	DISPOSITION EVENT	END OF STUDY	70	End of Study	SCREENING		2016-10-02
DS	TREATM1-XX-4001008	3		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10.1	Visit 1 - Rescreening 1			2016-10-11
DS	TREATM1-XX-4001008	4	SCRNFAIL 2	SCREEN FAILURE	SCREEN FAILURE	DISPOSITION EVENT	END OF STUDY	70	End of Study	SCREENING		2016-10-12
DS	TREATM1-XX-4001008	5		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10.2	Visit 1 - Rescreening 2			2016-10-19
DS	TREATM1-XX-4001008	6	SCRNFAIL 3	SCREEN FAILURE	SCREEN FAILURE	DISPOSITION EVENT	END OF STUDY	70	End of Study	SCREENING		2016-10-19
DS	TREATM1-XX-4001008	7		INFORMED CONSENT OBTAINED	INFORMED CONSENT OBTAINED	PROTOCOL MILESTONE	SCREENING	10.3	Visit 1 - Rescreening 3			2016-10-26
DS	TREATM1-XX-4001008	8		RANDOMIZED	RANDOMIZED	PROTOCOL MILESTONE		20.3	Visit 2 - Baseline Rescreening 3			2016-10-27

EXAMPLE 3: INVESTIGATOR INFORMATION

Who?

- CDER / FDA may ask for a „Summary Level Clinical Site Data" dataset, which contains information related to investigators at site.
- http://www.fda.gov/downloads/Drugs/DevelopmentApprovalProcess/FormsSubmissionRequirements/ucm332466.pdf (most recent version)
- http://www.fda.gov/downloads/drugs/developmentapprovalprocess/formssubmissionrequirements/ucm332468.pdf (draft guidance)

What?

- Purpose of this is verifying the integrity of data, checking compliance to applicable FDA regulations and statutory requirements, ensuring rights / welfare of patients => to avoid fraud due to inspections on sites and related study data.

Where?

- As some information is kept in DM it would be logical to keep it in SUPPDM.
- A custom domain can be created if needed.

EXAMPLE 3: INVESTIGATOR INFORMATION (CONT. I)

Specifications for Preparing and Submitting Summary Level Clinical Site Data for CDER's Inspection Planning (07.Nov.2012, v1.2, p.7)

Variable Index	Variable Name	Variable Label	Type	Controlled Terms or Format	Notes or Description	Sample Value
28	FINLDISC	Financial Disclosure Amount	Num	Floating Point	Total financial disclosure amount ($USD) by site calculated as the sum of disclosures for the principal investigator and all sub-investigators to include all required parities. Under the applicable regulations (21 CFR Parts 54, 312, 314, 320, 330, 601, 807, 812, 814, and 860). If unable to obtain the information required to the corresponding statements, enter -1.	25000.00
29	LASTNAME	Investigator Last Name	Char	String	Last name of the investigator as it appears on the FDA 1572.	Doe
30	FRSTNAME	Investigator First Name	Char	String	First name of the investigator as it appears on the FDA 1572.	John
31	MINITIAL	Investigator Middle Initial	Char	String	Middle initial of the investigator, if any, as it appears on the FDA 1572.	M
32	PHONE	Investigator Phone Number	Char	String	Phone number of the primary investigator. Include country code for non-US numbers.	44-555-555-5555
33	FAX	Investigator Fax Number	Char	String	Fax number of the primary investigator. Include country code for non-US numbers.	44-555-555-5555
34	EMAIL	Investigator Email Address	Char	String	Email address of the primary investigator.	john.doe@mail.com
35	COUNTRY	Country	Char	ISO 3166-1-alpha-3	3 letter ISO 3166 country code in which the site is located.	USA
36	STATE	State	Char	String	Unabbreviated state or province in which the site is located. If not applicable, enter NA.	Maryland
37	CITY	City	Char	String	Unabbreviated city, county, or village in which the site is located.	Silver Spring
38	POSTAL	Postal Code	Char	String	Postal code in which site is located. If not applicable, enter NA.	20850
39	STREET	Street Address	Char	String	Street address and office number at which the site is located.	1 Main St, Suite 100

EXAMPLE 3: INVESTIGATOR INFORMATION (CONT. II)

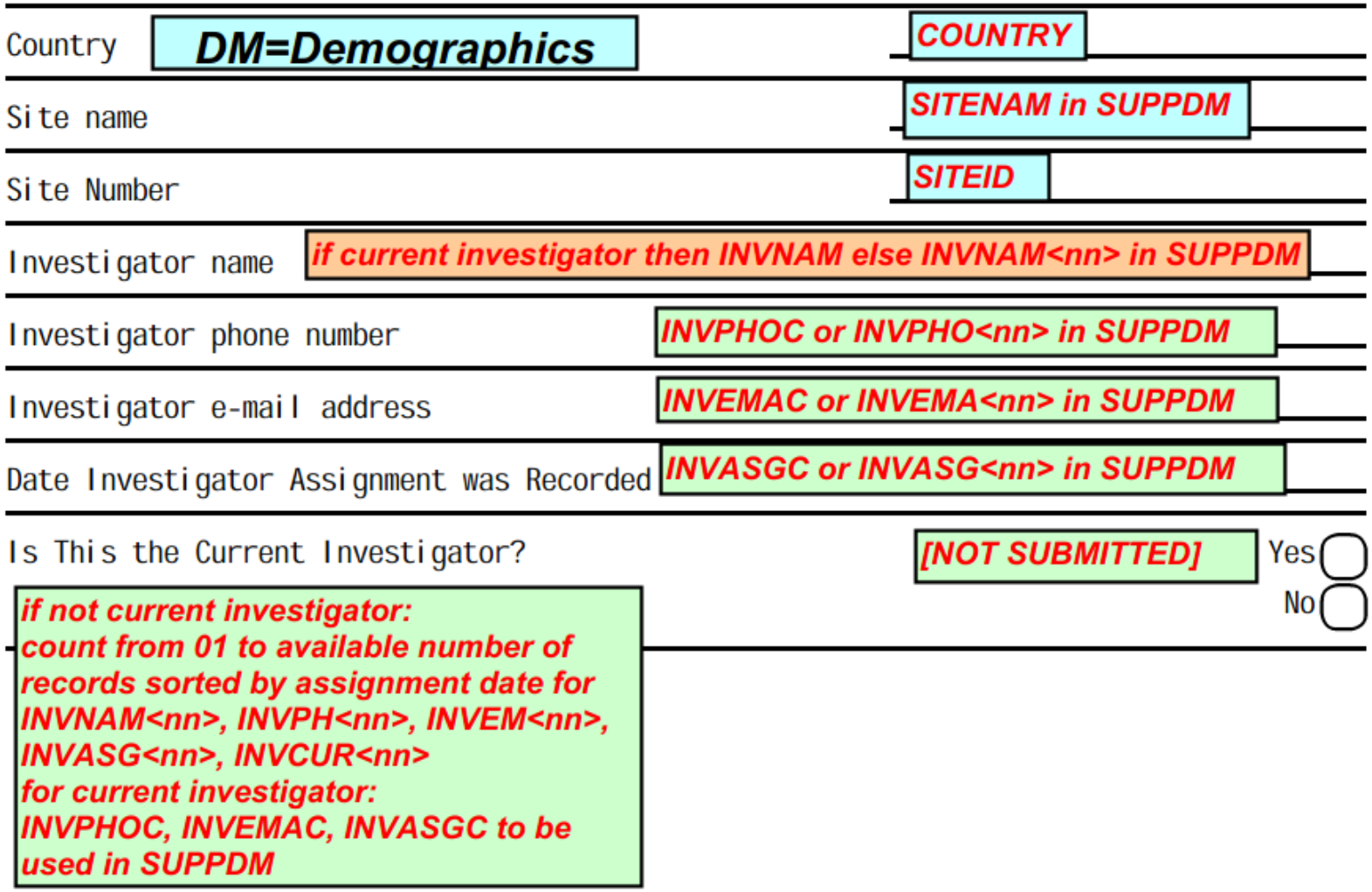
Country	
Site name	
Site Number	
Investigator name	
Investigator phone number	
Investigator e-mail address	
Date Investigator Assignment was Recorded	

Is This the Current Investigator?	Yes ☐ No ☐

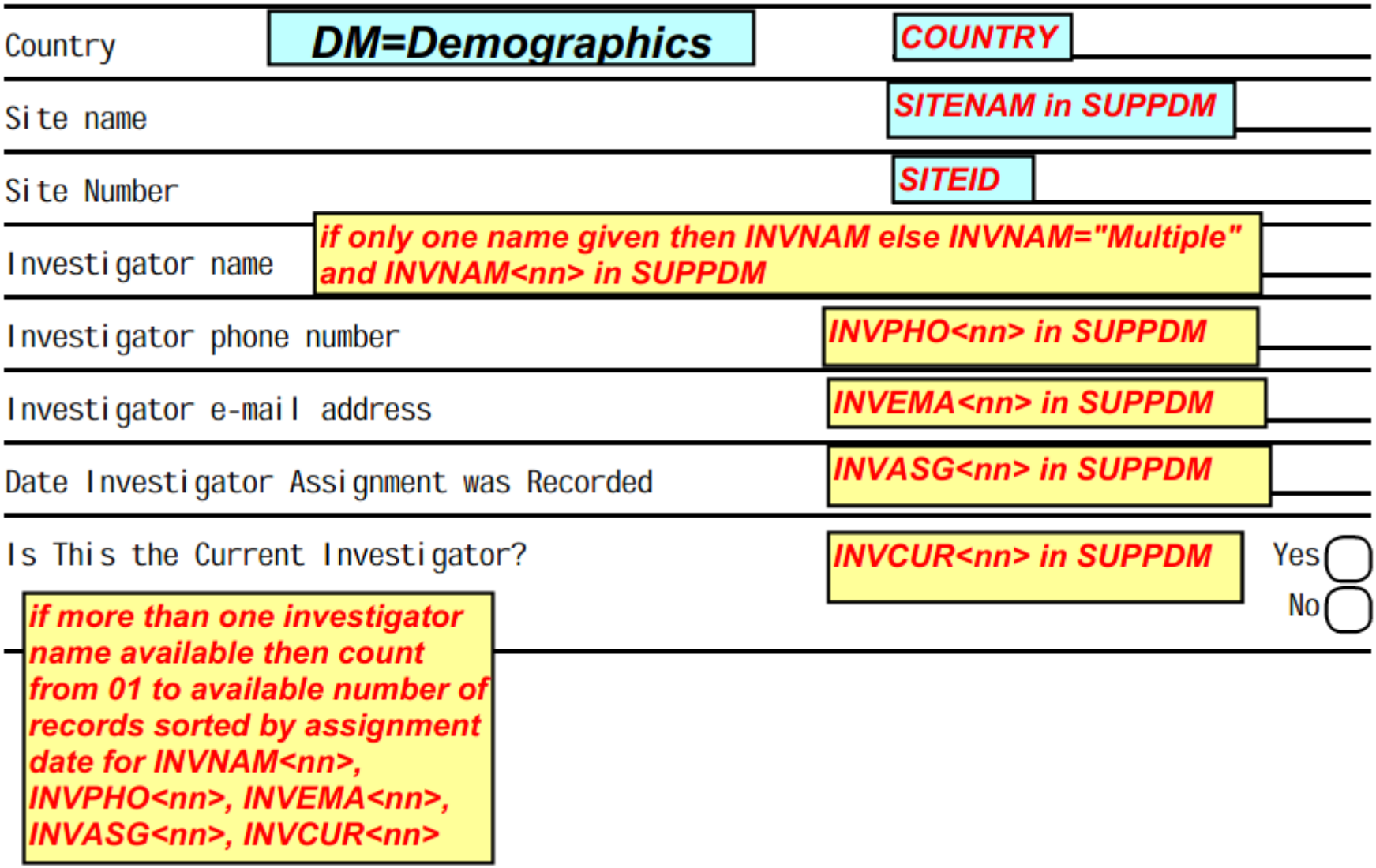
EXAMPLE 3: INVESTIGATOR INFORMATION (CONT. III)

Country	DM=Demographics	COUNTRY
Site name		SITENAM in SUPPDM
Site Number		SITEID
Investigator name		INVNAM
Investigator phone number		INVPHONE in SUPPDM
Investigator e-mail address		INVEMAIL in SUPPDM
Date Investigator Assignment was Recorded		INVASGND in SUPPDM
Is This the Current Investigator?		INVCURR in SUPPDM Yes ☐ No ☐

EXAMPLE 3: INVESTIGATOR INFORMATION (CONT. IV)



EXAMPLE 3: INVESTIGATOR INFORMATION (CONT. V)



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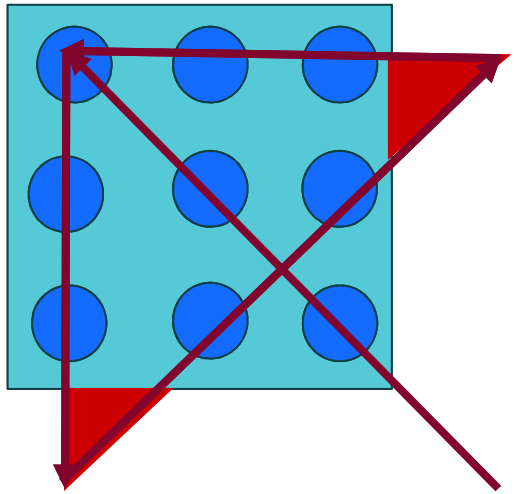
THINKING OUTSIDE THE BOX II



Red triangles are similar to non-standard data presented in the **SDTMIG** and **SDTM** from **CDISC**.

As long as the rules in the box are kept everything outside is possible.

THANK YOU

