Cota + MMRF
Real World Evidence
Multiple Myeloma

Overview and Data Manual

October 2018

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Authorized Use Permission

Version History

Version Number	Date	Author/ Owner	Description of Changes
1.0.0	09.21.18	Cota, Inc.	Initial draft
1.0.1	10.26.18	Cota, Inc.	Lab table update

Contact Information

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Overview

This document provides an overview of the Cota Real World Evidence (RWE) dataset which can be utilized for oncology analytics and research. This dataset is derived from the Cota Real World Evidence database, a HIPAA-compliant, de-identified data source drawn from the electronic health records (EHR) of contributing academic, for-profit, and community oncologist provider sites and hospital systems. This database includes detailed demographic, diagnostic, molecular and genomic testing, treatment, and outcome data. As of 2018, Cota's RWE is a diverse database comprised of rich longitudinal patient records collected from over 40 unique locations across North America.

Inclusion Criteria

Patients contained in the dataset match the following criteria, as identified:

1. Patient diagnosed with active Multiple Myeloma or smoldering Multiple Myeloma
2. Patient is older than 18 years of age
3. Patient lives in the United States

Exclusion Criteria

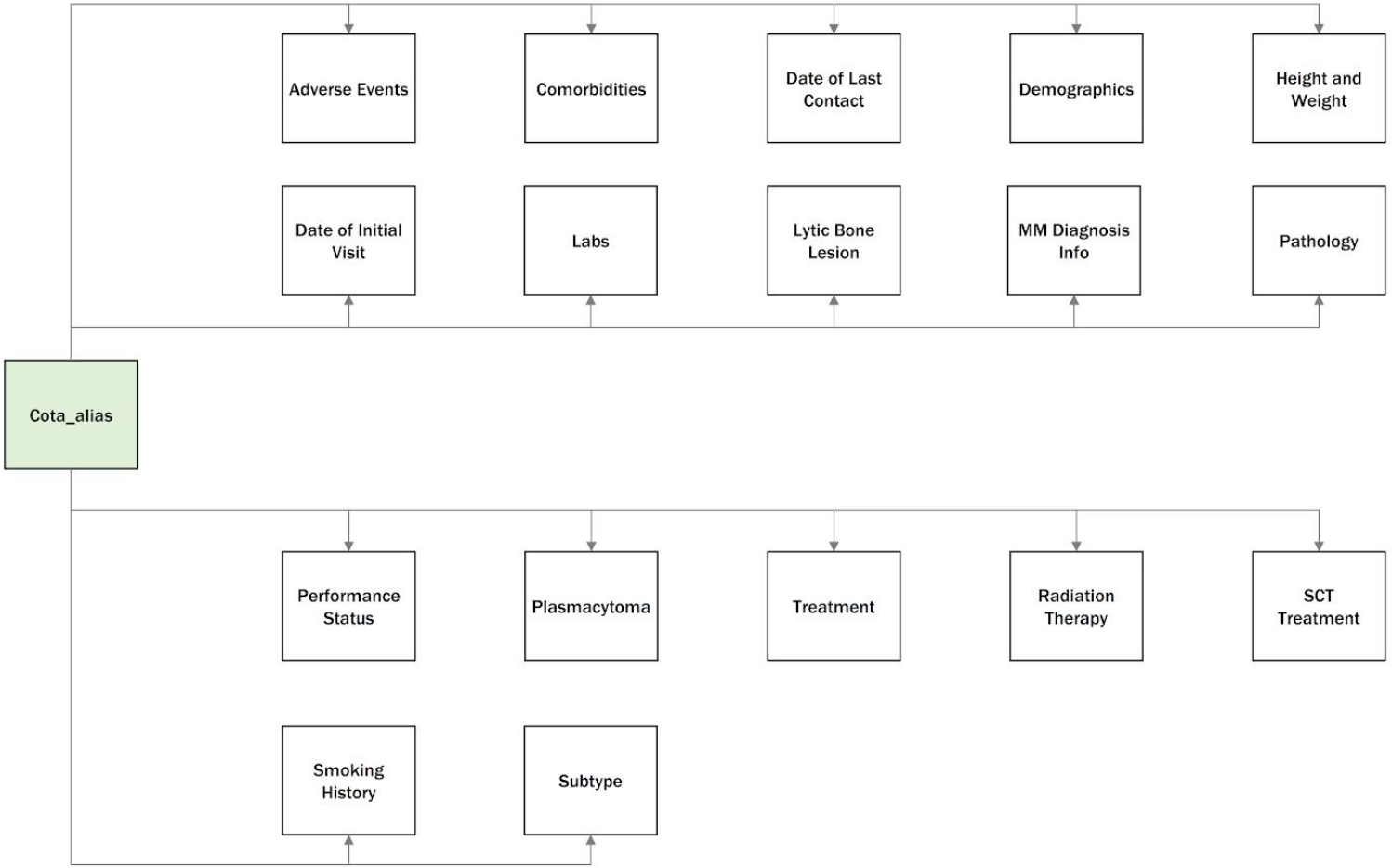
1. Any patient not meeting the inclusion criteria

File Format and Transfer

Cota utilizes standard flat file formats of comma-separated values (CSV) to transfer distinct RWE datasets. This format is compact and easily imported into other tools for analysis. Each file contains one line per record, where each field is delineated by the comma character (','). The files are transferred in the tabular structure defined below. Cota typically transfer these files via SFTP or via a secure, hosted data server (e.g. ShareFile).

Data Linking Schema

This schema outlines the structure of the delivered tables and how to construct the longitudinal patient journey within the Cota RWE database. Each table contains a patient identifier , cota_alias in this dataset, and a unique row identifier called ‘primary_key’.



Data Dictionary

This section serves as a complete list of all data elements in this RWE dataset as they appear in the indicated table, and notes the corresponding data format and control data used for generation, where available.

Table	Column	Description	Format	Sample Value	Control Data
adverse_events	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
adverse_events	delta_toxicity	Timedelta (in days) calculated from date of diagnosis to adverse event	Numeric	1157	-
adverse_events	date_source	Indicates if "date collected" was not available and the date used is "date documented"	Enum	-	date documented
adverse_events	type	Description of the adverse event. Inclusion: all toxicities that alter treatment. If blank, no toxicities were reported for this patient. Source document review: 1. Lab report 2. MD dictation. Toxicity is derived from CTCAE during abstraction using the above source documents.	Text	anemia	CTCAE
adverse_events	primary_key	Unique row identifier.	Key (Text)	1594509b0bd3da805ff3d380c39a19780ad6b466	-
comorbidities	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
comorbidities	personal_history_of_cancer	Description of the patient's history of prior cancer; date assessed, at or near date of diagnosis, takes priority. When unavailable, date documented is used.	Text	-	malignant carcinoid tumor of rectum, malignant melanoma of skin, malignant neoplasm of bladder, malignant neoplasm of breast, malignant neoplasm of bronchus and lung, malignant neoplasm of cervix uteri,

					malignant neoplasm of kidney, malignant neoplasm of larynx, malignant neoplasm of ovary, malignant neoplasm of pancreas, malignant neoplasm of prostate, malignant neoplasm of skin, malignant neoplasm of testis, malignant neoplasm of thyroid
comorbidities	metastatic_status	For patients with a personal history of cancer at the time of multiple myeloma diagnosis, indicates whether cancer was metastatic.	Enum	-	yes, no
comorbidities	delta_personal_history_of_cancer	Timedelta (in days) calculated from date of diagnosis	Numeric	-	-
comorbidities	date_source_personal_hist_cancer	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	comorbidity_status	Comorbidity status will indicate "not reported" if patient had no comorbidities at the time of diagnosis	Enum	not reported	not reported
comorbidities	delta_aids	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of AIDS	Numeric	-	-
comorbidities	date_source_aids	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_cerebrovascular_disease	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of cerebrovascular disease	Numeric	-	-
comorbidities	date_source_cerebrovascular	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_chronic_pulmonary_disease	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of chronic pulmonary disease	Numeric	-	-
comorbidities	date_source_chronic_pulmonary	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented

comorbidities	delta_congestive_heart_failure	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of congestive heart failure	Numeric	-	-
comorbidities	date_source_congestive_heart_fai	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_dementia	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of dementia	Numeric	-	-
comorbidities	date_source_dementia	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_diab_w_chronic_complic	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of diabetes with chronic complication	Numeric	-	-
comorbidities	date_source_diab_w_chronic	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_diab_wo_chronic	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of Diabetes without chronic complication	Numeric	-	-
comorbidities	date_source_diab_wo_chronic	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_hemiplegia_or_paraplegia	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of hemiplegia or paraplegia	Numeric	-	-
comorbidities	date_source_hemipleg_or_parapleg	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_metastatic_solid_tumor	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of a metastatic solid tumor	Numeric	-	-

comorbidities	date_source_metastatic_solid_tum	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_mild_liver_disease	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of mild liver disease	Numeric	-	-
comorbidities	date_source_mild_liver_disease	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_mod_or_severe_liver	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of moderate or severe liver disease	Numeric	-	-
comorbidities	date_source_mod_or_severe_liver	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_myocardial_infarction	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of myocardial infarction	Numeric	-	-
comorbidities	date_source_myocardial_infarctio	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_peptic_ulcer_disease	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of peptic ulcer disease	Numeric	-	-
comorbidities	date_source_peptic_ulcer_disease	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_peripheral_vascular	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of peripheral vascular disease	Numeric	-	-
comorbidities	date_source_peripheral_vascular	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented

comorbidities	delta_renal_disease	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of renal disease	Numeric	-	-
comorbidities	date_source_renal_disease	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_rheumatic_disease	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of rheumatic disease	Numeric	-	-
comorbidities	date_source_rheumatic_disease	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	delta_hiv	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of HIV	Numeric	-	-
comorbidities	date_source_hiv	Indicates if timedelta (in days) calculated from initial cancer diagnosis uses the date documented in EMR (applicable if comorbidity date unknown)	Enum	-	date documented
comorbidities	primary_key	Unique row identifier.	Key (Text)	c1eb7d8daf0ba883d8e17ab478f703f749be5efb	-
date_of_initial_visit	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
date_of_initial_visit	delta_initial_visit	Timedelta (in days) calculated from date of diagnosis to first visit with Cota network. This data element is intended to provide a proxy for the amount of patient history that exists within the record, prior to seeing a Cota oncologist.	Numeric	14	-
date_of_initial_visit	primary_key	Unique row identifier.	Key (Text)	d9bb4a3c2687142bbb9ea2e3392355ec7f10a6f2	-
date_of_last_contact	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-

date_of_last_contact	delta_date_of_last_contact	Timedelta (in days) calculated from date of diagnosis	Numeric	2968	-
date_of_last_contact	primary_key	Unique row identifier.	Key (Text)	8c445f74d56f0caf6f6aab7c659e9e97ed14defc	-
demographics	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
demographics	delta_death	Timedelta (in days) calculated from date of diagnosis	Numeric	-	-
demographics	age_at_diagnosis	Age of patient at initial diagnosis	Numeric	56	-
demographics	ethnicity	Ethnicity as identified by the patient	Enum	not hispanic or latino	Hispanic or latino, Not hispanic or latino, Not reported
demographics	sex	Physical sex of patient	Enum	female	female, male
demographics	race	Race provided by the patient	Enum	white	african american, asian, asian indian, black, black or african american, hispanic, not reported, other, pacific islander, patient refused, unknown, white
demographics	primary_key	Unique row identifier.	Key (Text)	0c2f88fb228cbc6c81049dede3cef7ff12dfd1c1	-
height_and_weight	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
height_and_weight	delta_height_and_weight	Timedelta (in days) calculated from date of diagnosis	Numeric	14	-
height_and_weight	height	Patient height. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Numeric	160.02	-
height_and_weight	height_units	Patient height unit. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Enum	cm	cm, not reported

height_and_weight	height_raw	Patient height. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Numeric	63	-
height_and_weight	height_units_raw	Patient height unit. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Enum	in	cm, in, not reported
height_and_weight	weight	Patient weight. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Numeric	65.32	-
height_and_weight	weight_units	Patient weight unit. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Enum	kg	kg, not reported
height_and_weight	weight_raw	Patient weight. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Numeric	144	-
height_and_weight	weight_units_raw	Patient weight unit. Source document review: 1. MD dictation 2. Prescription 3. Nurse note 4. General EMR	Enum	lb	kg, lb, not reported
height_and_weight	primary_key	Unique row identifier.	Key (Text)	5b1fba8ba9152b042d1b442606f25067f3de9476	-
labs	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
labs	delta_lab	Timedelta (in days) calculated from date of diagnosis	Numeric	-10	-
labs	lab_uln_operator	If lab_uln is preceded by an operator, it will be listed here (< or >)	Enum	-	<, >, <=
labs	lab_uln	Upper Limit of Normal	Text	214	-
labs	lab_lln_operator	If lab_lln is preceded by an operator, it will be listed here (< or >)	Enum	-	<, >, <=
labs	lab_lln	Lower Limit of Normal	Text	135	-

labs	lab_test	Name of lab test	Text	albumin	albumin, beta 2 microglobulin, calcium, creatinine, hemoglobin, iga, igd, ige, igg, igm, kappa flc, lambda flc, ldh, partial serum m spike, partial urine m spike, partial urine m-spike (bence-jones), peripheral blood plasma cells, serum immunofixation, serum m spike, urine collection period, urine immunofixation, urine m spike, urine m-spike (bence-jones), urine total volume
labs	lab_result_operator	If lab_result is preceded by an operator, it will be listed here(< or >)	Enum	<	<, >
labs	lab_result	Result of lab assessment. If blank for albumin, creatinine, kappa FLC, lambda FLC, calcium, Iga, Igm, Igg, Igd, and Ige tests, then this indicates the sample was hemolyzed.	Text	0.06	-
labs	lab_units	Unit of measurement for lab result. Unknown entry indicates units were unavailable.	Enum	g/dl	%, g/dl, hrs, ku/l, mg/24hr, mg/dl, mg/l, mg/tv, ml, u/l, unknown
labs	primary_key	Unique row identifier.	Key (Text)	0010c44577960ab14cdbbe65af72ed5a3d5ecbe3	-
lytic_bone_lesion	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
lytic_bone_lesion	delta_lytic_bone_lesion	Timedelta (in days) calculated from date of diagnosis	Numeric	-4	-
lytic_bone_lesion	date_source	Indicates if "date collected" was not available and the date used is "date documented"	Enum	-	date documented
lytic_bone_lesion	lytic_lesions	Number of lytic lesions	Numeric	0	-
lytic_bone_lesion	lytic_lesions_innumerable	Indicates if number of lytic lesions was innumerable.	Enum	innumerable	innumerable

lytic_bone_lesion	primary_key	Unique row identifier.	Key (Text)	0972028aaeeff42bf6b7f107f786cc83a51fe7cc	-
mm_diagnosis_info	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
mm_diagnosis_info	delta_diagnosis_date	Timedelta (in days) calculated from date of diagnosis of specified disease to date of active myeloma diagnosis	Numeric	0	-
mm_diagnosis_info	year_of_diagnosis	Year of diagnosis for disease specified	Numeric	2010	-
mm_diagnosis_info	quarter_of_diagnosis	Quarter of diagnosis for disease specified	Numeric	3	
mm_diagnosis_info	quarter_year_of_diagnosis	Quarter and year of diagnosis for disease specified	Text	2010 Q3	-
mm_diagnosis_info	disease	Disease diagnosed at the date specified	Enum	active myeloma	active myeloma, mgus, smoldering, solitary plasmacytoma
mm_diagnosis_info	primary_key	Unique row identifier.	Key (Text)	9d5cb0a08270fe175cfe39e8ea5bc6608ee08f62	-
pathology	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
pathology	methodology	Methodology by which sample was tested.	Enum	cytogenetics	cytogenetics, differentiation, fish, flow cytometry, ihc, ngs, pcr, unspecified
pathology	normal_cutoff	Normal cutoff value (upper limit of range) for lab reporting del(17p) by FISH	Numeric	8	-
pathology	test	Name of the molecular marker tested. Molecular markers tested by FISH or Cytogenetics, when available. Hierarchy of source document review: 1. Pathology report. 2. MD dictation.	Enum	1p deletion	1p deletion, 1q amplification, clonal plasma cells in bone marrow by flow cytometry, clonal plasma cells in bone marrow by ihc, clonal plasma cells in bone marrow by unspecified, del(13), del(17p), gene expression profile (gep), hyperdiploidy, hypodiploidy, peripheral

					blood cell %, t(11;14), t(14;16), t(14;20), t(4;14), t(6;14)
pathology	result_units	Units if result has associated units.	Text	%	%, %
pathology	type_of_procedure	Type of procedure/ sample from which test results were procured.	Text	bone marrow biopsy	bone marrow biopsy, other biopsy, peripheral blood cell %
pathology	result_numeric_operator	If result_numeric_value is preceded by an operator, it will be listed here(< or >)	Enum	<	<, >
pathology	result_numeric_value	Percentage of clonal plasma cells in the tested sample, when pertaining to clonal plasma cell results. Percentage of positivity for Del(17p) if pertaining to FISH result.	Numeric	0	-
pathology	result_text	For molecular markers assessed or clonal plasma cells, indicates positive or negative result. For cytogenetics, indicates if patient was found to have normal cytogenetics.	Text	insufficient sample	insufficient sample, negative, non-diagnostic, normal, normal/diploid (cytogenetics), not detected, positive, unknown
pathology	date_source	Indicates if "date collected" was not available and the date used is "date documented"	Enum	-	date documented
pathology	delta_pathology	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of myocardial infarction	Numeric	0	-
pathology	primary_key	Unique row identifier.	Key (Text)	0054386bb7a81ab989ee1a66bdfe4d204267b820	-
performance_status	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
performance_status	delta_performance_status	Timedelta (in days) calculated from date of diagnosis	Numeric	1161	-
performance_status	ecog_score	ECOG performance status reported either by patient or provider. Entered at specific timepoints, if available. Source of flowsheet in EMR (Patient reported) or MD note (MD reported)	Enum	1	0, 1, 2, 3, 4, 5, not reported

performance_status	kps	Karnofsky performance status reported either by patient or provider. Entered at specific timepoints, if available. Source of flowsheet in EMR (Patient reported) or MD note (MD reported)	Enum	70	0-100, not reported
performance_status	presentation	Time point at which performance status is collected	Enum	end regimen	end regimen, initial dx, initial visit, new regimen, unknown
performance_status	primary_key	Unique row identifier.	Key (Text)	031d82aadff8f94e6d1dc0ec58d89036a4b87318	-
plasmacytoma	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
plasmacytoma	delta_plasmacytoma	Timedelta (in days) calculated from date of diagnosis	Numeric	-662166	-
plasmacytoma	date_source	Indicates if "date collected" was not available and the date used is "date documented"	Enum	-	date documented
plasmacytoma	plasmacytoma_present	Presence or absence of plasmacytoma	Enum	absent	absent, present
plasmacytoma	plasmacytoma_size	Size of plasmacytoma when available	Numeric	2.4	-
plasmacytoma	plasmacytoma_unit	Unit for plasmacytoma size	Enum	cm	cm, mm
plasmacytoma	primary_key	Unique row identifier.	Key (Text)	4fcce9781bdc0530c73da1dff6f8be67869b4551	-
radiation_therapy	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
radiation_therapy	delta_radiation_start_date	Timedelta (in days) calculated from date of diagnosis	Numeric	2277	-
radiation_therapy	delta_radiation_stop_date	Timedelta (in days) calculated from date of diagnosis	Numeric	2292	-
radiation_therapy	total_dose	Total dose of radiation therapy administered.	Numeric	2500	-
radiation_therapy	radiation_type	Type of radiation administered.	Enum	external beam	3dcrt, external beam, external beam, 3d conformal, external beam, 3d conventional, external beam, imrt,

					other, radiation therapy, unspecified, stereotactic radiosurgery, total-body irradiation
radiation_therapy	radiation_units	Units of radiation therapy administered.	Enum	cgy	cgy, gy, unknown
radiation_therapy	reason_for_discontinuation	Reason radiation therapy was discontinued.	Enum	-	advanced age, cardiac, death, doctor preference, inadequate response, insurance reasons, patient preference, progression, toxicity, unknown due to missing documentation
radiation_therapy	clinical_trial	Indicates the regimen is part of a trial.	Enum	-	yes, no
radiation_therapy	primary_key	Unique row identifier.	Key (Text)	f275ba01fd239d51333e79affd5e587c39243a54	-
sct_treatment	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
sct_treatment	delta_chemo_start	Timedelta (in days) calculated from date of diagnosis	Numeric	122	-
sct_treatment	delta_chemo_stop	Timedelta (in days) calculated from date of diagnosis. If stop date not provided for patients that are not currently receiving drug, it is unavailable in EMR.	Numeric	2548	-
sct_treatment	agent	For chemotherapy, drugs included in doctor-stated regimen. For cellular therapy, type of cellular therapy/ transplant.	Text	autologous stem cell transplant	allogeneic stem cell transplant, autologous stem cell boost, autologous stem cell transplant, car-t, dli, investigational cellular therapy, vaccine
sct_treatment	num_cells	Number of cells infused in stem cell transplant	Numeric	12.7	-
sct_treatment	treatment_units	Units for number of cells transplanted	Text	10^6 cells/kg	10^2 cells/kg, 10^3 cells/kg, 10^5 cells/kg, 10^6 cells/kg, 10^7 cells/kg, 10^8 cells/kg, cells/kg
sct_treatment	therapy_detail	Indicates whether data in row pertains to a reason therapy was changed or a reason therapy was not given.	Enum	-	change in therapy, declined intervention: patient decision, optimal therapy excluded: md decision

sct_treatment	therapy_detail_attribute	Attribute will indicate the reason for change/ discontinuation or reason optimal therapy was not given	Enum	-	advanced age, cardiac, doctor preference, hematopoietic, inadequate response, insurance reasons, other, progression, pulmonary, toxicity
sct_treatment	clinical_trial	Indicates the regimen is part of a trial.	Enum	no	yes, no
sct_treatment	primary_key	Unique row identifier.	Key (Text)	36db02ea204798f57c2d7d09070769bf3dae2328	-
smoking_history	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
smoking_history	delta_tobacco_assessed	Timedelta (in days) calculated from date of diagnosis	Numeric	14	-
smoking_history	tobacco_history	Tobacco history if indicated in EHR. Current Smoker - Patients that are current cigarette smokers as noted in the medical record. Selected if the patient is reported to have smoked at least 100 cigarettes during his/ her lifetime and still smokes despite regularity/ irregularity at time of presentation (date of diagnosis). Former Smoker - Patients that are former cigarette smokers (had quit smoking) as noted in the medical record. Selected if the patient is reported to have smoked at least 100 cigarettes during his/ her lifetime and has quit smoking at time of presentation (date of diagnosis). Never Smoker - Patients that have never smoked cigarettes as noted in the medical record. Selected if the patient has not smoked at least 100 cigarettes during his/ her lifetime. Passive Smoker - Patients that are exposed to cigarette smoke (secondhand smoke) as noted in the medical record. Selected if the patient is exposed to secondhand smoke at time of presentation (date of diagnosis).	Enum	former smoker	Current Smoker, Former Smoker, Passive Smoker, Never Smoker

smoking_history	date_source	Indicates if "date collected" was not available and the date used is "date documented"	Enum	-	date documented
smoking_history	primary_key	Unique row identifier.	Key (Text)	524d736297f6a19b9300eb28b2c63980c7b8c9aa	-
subtype	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
subtype	delta_subtype	Timedelta (in days) calculated from date of diagnosis to comorbidity diagnosis of rheumatic disease	Numeric	14	-
subtype	date_source	Indicates if "date collected" was not available and the date used is "date documented"	Enum	-	date documented
subtype	myeloma_subtype	Subtype assigned in pathology or lab reports. Hierarchy of source document review: 1. Bone marrow biopsy 2. Immunofixation 3. MD dictation	Enum	igg lambda	iga kappa, iga lambda, igd kappa, igd lambda, igg kappa, igg lambda, igm kappa, kappa light chain, lambda light chain, minimally secretory, non-secretory
subtype	primary_key	Unique row identifier.	Key (Text)	102258456ba75b291ed3d41c2facee0c051f5e54	-
treatment	cota_alias	Unique patient identifier across tables	Numeric	COTA_b092eb949eb04aedbd79	-
treatment	currently_receiving	Indicates if the patient is currently receiving the treatment	Enum	no	yes, no
treatment	delta_doc_currently_receiving	Timedelta (in days) calculated from date of diagnosis to date of abstraction of treatment	Numeric	-	-
treatment	delta_chemo_start	Timedelta (in days) calculated from date of diagnosis	Numeric	1161	-
treatment	delta_chemo_stop	Timedelta (in days) calculated from date of diagnosis. If stop date not provided for patients that are not currently receiving drug, it is unavailable in EMR.	Numeric	1161	-

treatment	type	Indicates whether therapy is chemotherapy, cellular therapy or supportive therapy.	Enum	chemo	chemo, supportive, cellular
treatment	agent	For chemotherapy, drugs included in doctor-stated regimen. For cellular therapy, type of cellular therapy/ transplant.	Text	bendamustine,carfilzomib,dexamethasone	-
treatment	num_of_cycles	Number of cycles received per treatment regimen	Numeric	1	-
treatment	therapy_detail	Indicates whether data in row pertains to a reason therapy was changed or a reason therapy was not given.	Enum	change in therapy	change in therapy, declined intervention: patient decision, optimal therapy excluded: md decision
treatment	therapy_detail_attribute	Attribute will indicate the reason for change/ discontinuation or reason optimal therapy was not given	Enum	doctor preference	advanced age, cardiac, death, doctor preference, hematopoietic, inadequate response, insurance reasons, neurologic, other, patient preference, progression, renal, toxicity, unknown due to missing documentation
treatment	maintenance_therapy	Indicates whether treatment received was designated as "maintenance"	Enum	-	yes, no
treatment	clinical_trial	Indicates the regimen is part of a trial.	Enum	no	yes, no
treatment	primary_key	Unique row identifier.	Key (Text)	073dc0c031eb48357fde23adf1ee8185af53585e	-

Drug and Regimen List

Drug Name	Other acronyms	Drug Name 1 (brand/ generic)	Drug Name 2 (brand/ generic)	Drug Name 3 (brand/ generic)	Drug Name 4 (brand/ generic)	Drug Name 5 (brand/ generic)	Drug Name 6 (brand/ generic)	Drug Name 7 (brand/ generic)
Most Commonly Used Drugs								

Dexamethasone		Decadron/ Dexamethasone						
Lenalidomide		Revlimid/ Lenalidomide						
Bortezomib		Velcade/ Bortezomib						
Thalidomide		Thalomid/ Thalidomide						
Pomalidomide		Pomalyst/Pomalidomide						
Carfilzomib		Kyprolis/ Carfilzomib						
Ixazomib		Ninlaro/ Ixazomib						
Cyclophosphamide		Cytoxan/ Cyclophosphamide						
Daratumumab		Darzalex/ Daratumumab						
Elotuzumab		Empliciti/ Elotuzumab						
Melphalan		Alkeran/ Melphalan						

Less Common Drugs								
Bendamustine		Bendeka/ Bendamustine						
Carmustine		BiCNU/ Carmustine						
Doxorubicin		Adriamycin/ Doxil/ Doxorubicin						

Panobinostat		Farydak/ Panobinostat						
Cisplatin		Cisplatin						
Etoposide		Etoposide						
Vincristine		Oncovin/ Vincasar/ Vincristine						
Nelfinavir		Viracept/ Nelfinavir						
Methylprednisolone		Methylprednisolone						
Cytarabine	Ara-C	Ara-C/ Cytarabine						
Pembrolizumab		Keytruda/ Pembrolizumab						
Fludarabine		Fludarabine						
Topical Nitrogen Mustard		Mustargen/ Topical Nitrogen Mustard						

Most Common Regimens								
VRD		Velcade/ Bortezomib	Revlimid/ Lenalidomide	Decadron/ Dexamethasone				
RD		Revlimid/ Lenalidomide	Decadron/ Dexamethasone					
VD	BorD	Velcade/ Bortezomib	Decadron/ Dexamethasone					
VR		Velcade/ Bortezomib	Revlimid/ Lenalidomide					
VPD	VD + Pomalidomide	Velcade/ Bortezomib	Decadron/ Dexamethasone	Pomalyst/Pomalidomide				

VTD	VD + Thalidomide	Velcade/ Bortezomib	Decadron/ Dexamethasone	Thalidomide				
CyBorD	BCD	Velcade/ Bortezomib	Decadron/ Dexamethasone	Cytoxan/ Cyclophosphamide				
CD		Cytoxan/ Cyclophosphamide	Decadron/ Dexamethasone					
CP		Cytoxan/ Cyclophosphamide	Prednisone					
KRD	CRD	Revlimid/ Lenalidomide	Decadron/ Dexamethasone	Kyprolis/ Carfilzomib				
KD		Kyprolis/ Carfilzomib	Decadron/ Dexamethasone					
KR		Revlimid/ Lenalidomide	Kyprolis/ Carfilzomib					
Bendamustine, Bortezomib, Dexamethasone		Bendeka/ Bendamustine	Velcade/ Bortezomib	Decadron/ Dexamethasone				
Bortezomib, Doxorubicin, Dexamethasone		Velcade/ Bortezomib	Adriamycin/ Doxil/ Doxorubicin	Decadron/ Dexamethasone				
Bortezomib, Liposomal Doxorubicin		Velcade/ Bortezomib	Doxil/ Doxorubicin					
Cyclophosphamide, Lenalidomide, Dexamethasone		Cytoxan/ Cyclophosphamide	Revlimid/ Lenalidomide	Decadron/ Dexamethasone				
Daratumumab, Bortezomib, Dexamethasone		Darzalex/ Daratumumab	Velcade/ Bortezomib	Decadron/ Dexamethasone				

Elotuzumab, Bortezomib, Dexamethasone		Empliciti/ Elotuzumab	Velcade/ Bortezomib	Decadron/ Dexamethasone				
Lenalidomide, Bendamustine, Dexamethasone		Revlimid/ Lenalidomide	Bendeka/ Bendamustine	Decadron/ Dexamethasone				
Dexamethasone, Lenalidomide, Ixazomib		Revlimid/ Lenalidomide	Decadron/ Dexamethasone	Ninlaro/ Ixazomib				
Dexamethasone, Ixazomib		Ninlaro/ Ixazomib	Decadron/ Dexamethasone					
DCEP		Decadron/ Dexamethasone	Cytoxan/ Cyclophosphamide	Cisplatin	Etoposide			
V-DCEP		Velcade/ Bortezomib	Decadron/ Dexamethasone	Cytoxan/ Cyclophosphamide	Cisplatin	Etoposide		
VTD-PACE		Velcade/ Bortezomib	Decadron/ Dexamethasone	Cisplatin	Thalidomide	Adriamycin/ Doxorubicin	Cytoxan/ Cyclophosphamide	Etoposide
VTD-PAE		Velcade/ Bortezomib	Decadron/ Dexamethasone	Thalidomide	Adriamycin/ Doxorubicin	Cytoxan/ Cyclophosphamide	Etoposide	
VTD-PCE		Velcade/ Bortezomib	Decadron/ Dexamethasone	Cisplatin	Thalidomide	Cytoxan/ Cyclophosphamide	Etoposide	
VT-PACE		Velcade/ Bortezomib	Thalidomide	Cisplatin	Adriamycin/ Doxorubicin	Cytoxan/ Cyclophosphamide	Etoposide	
VD-PACE		Velcade/ Bortezomib	Decadron/ Dexamethasone	Cisplatin	Cytoxan/ Cyclophosphamide	Adriamycin/ Doxorubicin	Etoposide	
VD-PAE		Velcade/ Bortezomib	Decadron/ Dexamethasone	Cytoxan/ Cyclophosphamide	Adriamycin/ Doxorubicin	Etoposide		
TD-PACE		Thalidomide	Decadron/ Dexamethasone	Cisplatin	Cytoxan/ Cyclophosphamide	Adriamycin/ Doxorubicin	Etoposide	

Dexamethasone, Daratumumab		Decadron/ Dexamethasone	Darzalex/ Daratumumab					
VTD-ACE		Velcade/ Bortezomib	Decadron/ Dexamethasone	Thalidomide	Adriamycin/ Doxorubicin	Cytoxan/ Cyclophosphamide	Etoposide	
CDE		Cytoxan/ Cyclophosphamide	Adriamycin/ Doxil/ Doxorubicin	Etoposide				

Less Common Regimens								
BiRd		Biaxin/ Clarithromycin	Revlimid/ Lenalidomide	Decadron/ Dexamethasone				
ClaPD		Biaxin/ Clarithromycin	Pomalyst/ Pomalidomide	Decadron/ Dexamethasone				
MVP		Melphalan	Velcade/ Bortezomib	Prednisone				
MP		Melphalan	Prednisone					
IT Thiotepa		Tepadina/ Thiotepa						
IT Cytarabine		DepoCyt/ Cytarabine						
Methotrexate		Methotrexate						
ERd		Empliciti/ Elotuzumab	Revlimid/ Lenalidomide	Decadron/ Dexamethasone				
VCRD	CRVD	Velcade/ Bortezomib	Cytoxan/ Cyclophosphamide	Revlimid/ Lenalidomide	Decadron/ Dexamethasone			
VCD		Velcade/ Bortezomib	Cytoxan/ Cyclophosphamide	Decadron/ Dexamethasone				
DRd		Decadron/ Dexamethasone	Darzalex/ Daratumumab	Revlimid/ Lenalidomide				
IRD		Ninlaro/ Ixazomib	Decadron/ Dexamethasone	Revlimid/ Lenalidomide				

Panobinostat, Carfilzomib		Farydak/ Panobinostat	Kyprolis/ Carfilzomib					
VFD		Velcade/ Bortezomib	Farydak/ Panobinostat	Decadron/ Dexamethasone				
Pomalidomide, Cyclophosphamide, Dexamethasone		Pomalyst/Pomalidomide	Cytoxan/ Cyclophosphamide	Decadron/ Dexamethasone				
Pomalidomide, Dexamethasone		Pomalyst/Pomalidomide	Decadron/ Dexamethasone					
KCPd		Kyprolis/ Carfilzomib	Cytoxan/ Cyclophosphamide	Pomalyst/ Pomalidomide	Decadron/ Dexamethasone			
KPD		Kyprolis/ Carfilzomib	Pomalyst/ Pomalidomide	Decadron/ Dexamethasone				
BEAM		BiCNU/ Carmustine	Etoposide	Ara-C/ Cytarabine	Melphalan			
mini-BEAM		BiCNU/ Carmustine	Etoposide	Ara-C/ Cytarabine	Melphalan			
Dexamethasone, Lenalidomide, Pembrolizumab		Keytruda/ Pembrolizumab	Revlimid/ Lenalidomide	Decadron/ Dexamethasone				
VMCP		Oncovin/ Vincasar/ Vincristine	Alkeran/ Melphalan	Cytoxan/ Cyclophosphamide	Prednisone			
Bortezomib, Melphalan, Fludarabine		Alkeran/ Melphalan	Velcade/ Bortezomib	Fludarabine				
DVD		Decadron/ Dexamethasone	Adriamycin/ Doxil/ Doxorubicin	Oncovin/ Vincasar/ Vincristine				

Supportives (Bisphosphonates)								

Zoledronic Acid		Zometa/ Zoledronic acid						
Pamidronate		Aredia/ Pamidronic acid/ Pamidronate						
Denosumab		Xgeva/ Prolia/ Denosumab						