



# COVID-19 Imaging Research Registry MIDRC Delivered Public Data Processing Profile

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## Rules

The following rules can be found within the TRIAD anonymization profile for CIRR:

- @removeprivategroups() – ALL private tags are removed unless otherwise specifically define within the rest of the profile. These are groups with odd group numbers.
- @remove() – The tag if present in the file is removed.
- @empty() – The tag if present in the file will have the value removed but the tag itself will remain present in the files.
- @add( *VALUE* ) – If the tag is present in the file, its value will be replace with the *VALUE* or parameter specified. If the tag is not present, it will be added to the file and the *VALUE* or parameter specified will be placed in the tag.
- @param(@MasterPatientId) – The parameter Master Patient ID will be used. This is the subject ID.
- @param(@SiteNo) – The parameter Site Number will be used.
- @param(@SiteName) – The parameter Site Name will be used.
- @param(@TrialNo) – The parameter Trial Number will be used.
- @hash(this) - Computes the MD5 hash of an element's value and returns it as a base-10 digit string

## Default Profile

The entire default profile is listed below, along with optional rules based on modality and manufacturer. Please note that a public tag, i.e. has an even group number by default is kept if not specifically defined.

All dates are shifted yet remain longitudinally accurate in context.

All UIDs are updated and are done so in context to keep integrity for items such as frames of reference.

# TRIAD Anonymization Profile: CIRR Public Default

```
@removeprivategroups()
set.[0008,0024] OverlayDateRetired = @remove()
set.[0008,0025] CurveDateRetired = @remove()
set.[0008,0034] OverlayTimeRetired = @remove()
set.[0008,0035] CurveTimeRetired = @remove()
set.[0008,0050] AccessionNumber = @empty()
set.[0008,0058] FailedSOPInstanceUIDList = @remove()
set.[0008,0080] InstitutionName = @empty()
set.[0008,0081] InstitutionAddress = @remove()
set.[0008,0082] InstitutionCodeSequence = @remove()
set.[0008,0090] ReferringPhysiciansName = @empty()
set.[0008,0092] ReferringPhysiciansAddress = @remove()
set.[0008,0094] ReferringPhysiciansTelephoneNumbers = @remove()
set.[0008,0096] ReferringPhysicianIdentificationSequence = @remove()
set.[0008,009c] ConsultingPhysicianName = @empty()
set.[0008,009d] ConsultingPhysicianIdentificationSeq = @remove()
set.[0008,1010] StationName = @empty()
set.[0008,0201] TimezoneOffsetFromUtc = @remove()
set.[0008,1040] InstitutionalDepartmentName = @remove()
set.[0008,1041] InstitutionalDepartmentTypeCodeSeq= @remove()
set.[0008,1048] PhysiciansOfRecord = @remove()
set.[0008,1049] PhysiciansOfRecordIdentificationSequence = @remove()
set.[0008,1050] PerformingPhysiciansName = @remove()
set.[0008,1052] PerformingPhysicianIdentificationSequence = @remove()
set.[0008,1060] NameOfPhysiciansReadingStudy = @remove()
set.[0008,1062] PhysiciansReadingStudyIdentificationSequence = @remove()
set.[0008,1070] OperatorsName = @remove()
set.[0008,1072] OperatorIdentificationSequence = @remove()
set.[0008,1080] AdmittingDiagnosisDescription = @remove()
set.[0008,1084] AdmittingDiagnosisCodeSeq = @remove()
set.[0008,1110] RefStudySeq = @remove()
set.[0008,1111] ReferencedPerformedProcedureStepSequence = @remove()
set.[0008,1120] ReferencedPatientSequence = @remove()
set.[0008,1140] RefImageSeq = @remove()
set.[0008,1155] RefSOPInstanceUID = @remove()
set.[0008,1195] TransactionUID = @remove()
```

```

set.[0008,2111] DerivationDescription = @remove()
set.[0008,2112] SourceImageSeq = @remove()
set.[0008,3010] IrradiationEventUID = @remove()
set.[0008,4000] IdentifyingCommentsRetired = @remove()
set.[0010,0010] PatientsName = @add(@param(@MasterPatientId)^@param(@SiteNo))
set.[0010,0020] PatientId = @add(@param(@SiteNo)-@param(@MasterPatientId))
set.[0010,0021] IssuerOfPatientId = @remove()
set.[0010,0022] TypeOfPatientId = @remove()
set.[0010,0032] PatientBirthTime = @remove()
set.[0010,0050] PatientsInsurancePlanCodeSequence = @remove()
set.[0010,0101] PatientsPrimaryLanguageCodeSequence = @remove()
set.[0010,0102] PatientsPrimaryLanguageCodeModifierSequence = @remove()
set.[0010,1000] OtherPatientIds = @empty()
set.[0010,1001] OtherPatientNames = @remove()
set.[0010,1002] OtherPatientIdsSequence = @remove()
set.[0010,1005] PatientsBirthName = @remove()
set.[0010,1040] PatientsAddress = @remove()
set.[0010,1050] InsurancePlanIdentificationRetired = @remove()
set.[0010,1060] PatientsMothersBirthName = @remove()
set.[0010,1080] MilitaryRank = @remove()
set.[0010,1081] BranchOfService = @remove()
set.[0010,1090] MedicalRecordLocator = @remove()
set.[0010,1100] RefPatientPhotoSeq = @remove()
set.[0010,2000] MedicalAlerts = @remove()
set.[0010,2110] ContrastAllergies = @remove()
set.[0010,2150] CountryOfResidence = @remove()
set.[0010,2152] RegionOfResidence = @remove()
set.[0010,2154] PatientsTelephoneNumbers = @remove()
set.[0010,2155] PatientsTelecomInformation = @remove()
set.[0010,2160] EthnicGroup = @remove()
set.[0010,2180] Occupation = @remove()
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set.[0010,21f0] PatientsReligiousPreference = @remove()
set.[0010,2201] PatientSpeciesDescription = @remove()
set.[0010,2202] PatientSpeciesCodeSequence = @remove()
set.[0010,2203] PatientsSexNeutered = @remove()
set.[0010,2292] PatientBreedDescription = @remove()
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set.[0010,2298] ResponsiblePersonRole = @remove()
set.[0010,2299] ResponsibleOrganization = @remove()
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set.[0012,0010] ClinicalTrialSponsorName = @empty()
set.[0012,0020] ClinicalTrialProtocolId = @empty()
set.[0012,0021] ClinicalTrialProtocolName = @add(CIRR)
set.[0012,0030] ClinicalTrialSiteId = @add(@param(@SiteNo))
set.[0012,0031] ClinicalTrialSiteName = @empty()
set.[0012,0040] ClinicalTrialSubjectId = @add(@param(@MasterPatientId))
set.[0012,0050] ClinicalTrialTimePointId = @empty()
set.[0012,0051] ClinicalTrialTimePointDescription = @remove()
set.[0012,0060] ClinicalTrialCoordinatingCenterName = @empty()
set.[0012,0062] PatientIdentityRemoved = @add(YES)
set.[0012,0063] DelidentificationMethod = @add(CIRR Default)
set.[0012,0064] DelidentificationMethodCodeSeq = @add(113100/113107/113108/113109/113111)
set.[0012,0071] ClinicalTrialSeriesID = @remove()
set.[0012,0072] ClinicalTrialSeriesDescription = @remove()
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set.[0012,0082] ClinicalTrialProtocolEthicsCommitteeApprovalNumber = @remove()
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set.[0016,004d] CameraOwnerName = @remove
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set.[0016,004f] LensMake = @remove()
set.[0016,0050] LensModel = @remove()

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set.[0016,0051] LensSerialNumber = @remove()  
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 set.[0016,0075] GPSAltitudeRef = @remove()  
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 set.[0016,007c] GPSSpeedRef = @remove()  
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 set.[0016,007e] GPSTrackRef = @remove()  
 set.[0016,007f] GPSTrack = @remove()  
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 set.[0016,0082] GPSMapDatum = @remove()  
 set.[0016,0083] GPSDestLatitudeRef = @remove()  
 set.[0016,0084] GPSDestLatitude = @remove()  
 set.[0016,0085] GPSDestLongitudeRef = @remove()  
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 set.[0016,0088] GPSDestBearing = @remove()  
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 set.[0018,1030] ProtocolName = @remove()  
 set.[0018,1400] AcquisitionDeviceProcessingDescription = @remove()  
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 set.[0018,9371] XRayDetectorID = @empty()  
 set.[0018,9373] XRayDetectorLabel = @remove()  
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 set.[0018,937f] DecompositionDescription = @remove()  
 set.[0018,9424] AcquisitionProtocolDescription = @remove()  
 set.[0018,a003] ContributionDescription = @remove()  
 set.[0020,0010] StudyId = @empty()  
 set.[0020,3401] ModifyingDeviceIdRetired = @remove()  
 set.[0020,3404] ModifyingDeviceManufacturerRetired = @remove()  
 set.[0020,3406] ModifiedImageDescriptionRetired = @remove()  
 set.[0020,4000] ImageComments = @remove()  
 set.[0020,9158] FrameComments = @remove()  
 set.[0028,4000] ImagePresentationCommentsRetired = @remove()  
 set.[0032,0012] StudyIdIssuerRetired = @remove()  
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 set.[0032,1030] ReasonForStudyRetired = @remove()  
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 set.[0032,1033] RequestingService = @remove()  
 set.[0032,1060] RequestedProcedureDescription = @remove()  
 set.[0032,1066] ReasonForVisit = @remove()

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set.[0032,1070] RequestedContrastAgent = @remove()
set.[0032,4000] StudyCommentsRetired = @remove()
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set.[0038,0014] IssuerOfAdmissionIdSeq = @remove()
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set.[0038,0061] IssuerOfServiceEpisodeId = @remove()
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set.[0038,0500] PatientState = @remove()
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set.[0040,0004] ScheduledProcedureStepEndDate = @remove()
set.[0040,0005] ScheduledProcedureStepEndTime = @remove()
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set.[0040,0009] ScheduledProcedureStepId = @remove()
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set.[0040,0011] ScheduledProcedureStepLocation = @remove()
set.[0040,0012] PreMedication = @remove()
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set.[0040,0100] ScheduledProcedureStepSequence = @remove()
set.[0040,0241] PerformedStationAeTitle = @remove()
set.[0040,0242] PerformedStationName = @remove()
set.[0040,0243] PerformedLocation = @remove()
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set.[0040,0250] PerformedProcedureStepEndDate = @remove()
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set.[0040,0252] PerformedProcedureStepStatus = @remove()
set.[0040,0253] PerformedProcedureStepID = @remove()
set.[0040,0254] PerformedProcedureStepDescription = @remove()
set.[0040,0270] ScheduledStepAttributesSequence = @remove()
set.[0040,0275] RequestAttributesSequence = @remove()
set.[0040,0280] CommentsOnThePerformedProcedureStep = @remove()
set.[0040,0281] PerformedProcedureStepDiscontinuationReasonCodeSequence = @remove()
set.[0040,0400] CommentsOnTheScheduledProcedureStep = @remove()
set.[0040,050a] SpecimenAccessionNumber = @hash(this)
set.[0040,0512] ContainerIdentifier = @empty()
set.[0040,0513] IssuerOfTheContainerIdentifierSeq = @remove()

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set.[0040,0551] SpecimenIdentifier = @empty()  
 set.[0040,0555] AcquisitionContextSequence = @remove()  
 set.[0040,0562] IssuerOfTheSpecimenIdentifierSeq = @remove()  
 set.[0040,0600] SpecimenShortDescription = @remove()  
 set.[0040,0602] SpecimenDetailedDescription = @remove()  
 set.[0040,0610] SpecimenPreparationSeq = @remove()  
 set.[0040,06fa] SlidIdentifier = @hash(this)  
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 set.[0040,1002] ReasonForTheRequestedProcedure = @remove()  
 set.[0040,1004] PatientTransportArrangements = @remove()  
 set.[0040,1005] RequestedProcedureLocation = @remove()  
 set.[0040,1006] PlacerOrderNumberProcedureRetired = @remove()  
 set.[0040,1007] FillerOrderNumberProcedureRetired = @remove()  
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 set.[0040,1010] NamesOfIntendedRecipientsOfResults = @remove()  
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 set.[0040,1103] PersonsTelephoneNumbers = @remove()  
 set.[0040,1104] PersonsTelecomInformation = @remove()  
 set.[0040,1400] RequestedProcedureComments = @remove()  
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 set.[0040,2005] IssueTimeOfImagingServiceRequest = @remove()  
 set.[0040,2006] PlacerOrderNumberImagingServiceRequestRetired = @remove()  
 set.[0040,2007] FillerOrderNumberImagingServiceRequestRetired = @remove()  
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 set.[0040,2009] OrderEnterersLocation = @remove()  
 set.[0040,2010] OrderCallbackPhoneNumber = @remove()  
 set.[0040,2011] OrderCallbackTelecomInformation = @remove()  
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 set.[0040,2017] FillerOrderNumberImagingServiceRequest = @empty()  
 set.[0040,2400] ImagingServiceRequestComments = @remove()  
 set.[0040,3001] ConfidentialityConstraintOnPatientDataDescription = @remove()  
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 set.[0040,4007] PerformedProcessingApplicationsCodeSequence = @remove()  
 set.[0040,4008] ScheduledProcedureStepExpirationDateAndTime = @remove()  
 set.[0040,4009] HumanPerformerCodeSequence = @remove()  
 set.[0040,4010] ScheduledProcedureStepModificationDateAndTime = @remove()  
 set.[0040,4011] ExpectedCompletionDateAndTime = @remove()  
 set.[0040,4015] ResultingGeneralPurposePerformedProcedureStepsSequence = @remove()  
 set.[0040,4016] ReferencedGeneralPurposeScheduledProcedureStepSequence = @remove()  
 set.[0040,4021] InputInformationSequence = @remove()  
 set.[0040,4022] RelevantInformationSequence = @remove()  
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 set.[0040,4031] RequestedSubsequentWorkitemCodeSequence = @remove()  
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 set.[0040,4037] HumanPerformersName = @remove()  
 set.[0040,4050] PerformedProcedureStepStartDateTime = @remove()  
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 set.[0040,4052] ProcedureStepCancellationDateAndTime = @remove()  
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 set.[0040,a027] VerifyingOrganization = @remove()  
 set.[0040,a030] VerificationDateAndTime = @remove()  
 set.[0040,a032] ObservationDateAndTime = @remove()  
 set.[0040,a040] ValueType = @remove()

set.[0040,a073] VerifyingObserverSequence = @remove()  
set.[0040,a075] VerifyingObserverName = @remove()  
set.[0040,a078] AuthorObserverSequence = @remove()  
set.[0040,a07a] ParticipantSequence = @remove()  
set.[0040,a07c] CustodialOrganizationSequence = @remove()  
set.[0040,a084] ObserverType = @remove()  
set.[0040,a088] VerifyingObserverIdentificationCodeSequence = @remove()  
set.[0040,a090] EquivalentCdaDocumentSequenceRetired = @remove()  
set.[0040,a120] Datetime = @remove()  
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set.[0040,a122] Time = @remove()  
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set.[0040,a124] Uid = @remove()  
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set.[0040,a171] ObservationUID = @remove()  
set.[0040,a172] RefObservationUIDTrial = @remove()  
set.[0040,a192] ObservationDateTrial = @remove()  
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set.[0040,a353] AddressTrialRetired = @remove()  
set.[0040,a354] TelephoneNumberTrialRetired = @remove()  
set.[0040,a358] VerbalSourceIdentifierCodeSequenceTrial = @remove()  
set.[0040,a402] ObservationSubjectUIDTrial = @remove()  
set.[0040,a730] ContentSequence = @remove()  
set.[0040,db0c] TemplateExtensionOrganizationUidRetired = @remove()  
set.[0040,db0d] TemplateExtensionCreatorUidRetired = @remove()  
set.[0050,001b] ContainerComponentID= @hash(this)  
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set.[0050,0021] LongDeviceDescription = @remove()  
set.[0070,0001] GraphicAnnotationSeq = @remove()  
set.[0070,0084] ContentCreatorsName = @remove()  
set.[0070,0086] ContentCreatorsIdentificationCodeSequence = @remove()  
set.[0070,031a] FiducialUid = @remove()  
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set.[0070,1102] PresentationSequenceCollectionUID = @remove()  
set.[0088,0140] StorageMediaFileSetUID = @remove()  
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set.[0088,0906] TopicSubjectRetired = @remove()  
set.[0088,0910] TopicAuthorRetired = @remove()  
set.[0088,0912] TopicKeywordsRetired = @remove()  
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set.[0400,0561] OriginalAttributesSequence = @remove()  
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set.[2200,0002] LabelText = @remove()  
set.[2200,0005] BarcodeValue = @remove()  
set.[3008,0105] SourceSerialNumber = @remove()  
set.[300a,0002] RTPlanLabel = @remove()  
set.[300a,0003] RTPlanName = @remove()  
set.[300a,0004] RTPlanDescription = @remove()  
set.[300a,000e] PrescriptionDescription = @remove()  
set.[300a,0016] DoseReferenceDescription = @remove()  
set.[300a,0072] FractionGroupDescription = @remove()  
set.[300a,00b2] TreatmentMachineName = @remove()  
set.[300a,00c3] BeamDescription = @remove()  
set.[300a,00dd] BolusDescription = @remove()  
set.[300a,0196] FixationDeviceDescription = @remove()  
set.[300a,01a6] ShieldingDeviceDescription = @remove()  
set.[300a,01b2] SetupTechniqueDescription = @remove()  
set.[300a,0216] SourceManufacturer = @remove()



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set.[300a,0611] RTAccessoryHolderSlotID = @remove()  
set.[300a,0615] RTAccessoryDeviceSlotID = @remove()  
set.[300a,0619] RadiationDoseIdentificationLabel = @remove()  
set.[300a,0623] RadiationDoseInVivoMeasurementLabel = @remove()  
set.[300a,062a] RTToleranceSetLabel = @remove()  
set.[300a,0676] EquipmentFrameOfReferenceDescription = @remove()  
set.[300a,067c] RadiationGenerationModeLabel = @remove()  
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set.[300c,0113] ReasonForOmissionDescription = @remove()  
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set.[300e,0008] ReviewerName = @remove()  
set.[3010,000f] ConceptualVolumeCombinationDescription = @remove()  
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set.[3010,001b] DeviceAlternateIdentifier = @remove()  
set.[3010,002d] DeviceLabel = @remove()  
set.[3010,0031] RefFiducialsUID = @remove()  
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set.[3010,0036] EntityName = @remove()  
set.[3010,0037] EntityDescription = @remove()  
set.[3010,0038] EntityLongLabel = @remove()  
set.[3010,0043] ManufacturerDeviceIdentifier = @remove()  
set.[3010,004c] IntendedPhaseStartDate = @remove()  
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set.[3010,0061] PriorTreatmentDoseDescription = @remove()  
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set.[3010,007b] PrescriptionNotes = @remove()  
set.[3010,007f] FractionationNotes = @remove()  
set.[3010,0081] PrescriptionNotesSeq = @remove()  
set.[4000,0010] ArbitraryRetired = @remove()  
set.[4000,4000] TextCommentsRetired = @remove()  
set.[4008,0040] ResultsIdRetired = @remove()  
set.[4008,0042] ResultsIdIssuerRetired = @remove()  
set.[4008,0050] ReferencedInterpretationSequenceRetired = @remove()  
set.[4008,0100] InterpretationRecordedDateRetired = @remove()  
set.[4008,0101] InterpretationRecordedTimeRetired = @remove()  
set.[4008,0102] InterpretationRecorderRetired = @remove()  
set.[4008,0103] ReferenceToRecordedSoundRetired = @remove()  
set.[4008,0108] InterpretationTranscriptionDateRetired = @remove()  
set.[4008,0109] InterpretationTranscriptionTimeRetired = @remove()  
set.[4008,010a] InterpretationTranscriberRetired = @remove()  
set.[4008,010b] InterpretationTextRetired = @remove()  
set.[4008,010c] InterpretationAuthorRetired = @remove()  
set.[4008,0111] InterpretationApproverSequenceRetired = @remove()  
set.[4008,0112] InterpretationApprovalDateRetired = @remove()  
set.[4008,0113] InterpretationApprovalTimeRetired = @remove()  
set.[4008,0114] PhysicianApprovingInterpretationRetired = @remove()  
set.[4008,0115] InterpretationDiagnosisDescriptionRetired = @remove()  
set.[4008,0117] InterpretationDiagnosisCodeSequenceRetired = @remove()  
set.[4008,0118] ResultsDistributionListSequenceRetired = @remove()  
set.[4008,0119] DistributionNameRetired = @remove()  
set.[4008,011a] DistributionAddressRetired = @remove()  
set.[4008,0200] InterpretationIdRetired = @remove()  
set.[4008,0202] InterpretationIdIssuerRetired = @remove()  
set.[4008,0210] InterpretationTypeldRetired = @remove()  
set.[4008,0212] InterpretationStatusIdRetired = @remove()  
set.[4008,0300] ImpressionsRetired = @remove()

```

set.[4008,4000] ResultsCommentsRetired = @remove()
set.[5000,0005] CurveDimensionsRetired = @remove()
set.[5000,0010] NumberOfPointsRetired = @remove()
set.[5000,0020] TypeOfDataRetired = @remove()
set.[5000,0022] CurveDescriptionRetired = @remove()
set.[5000,0030] AxisUnitsRetired = @remove()
set.[5000,0040] AxisLabelsRetired = @remove()
set.[5000,0103] DataValueRepresentationRetired = @remove()
set.[5000,0104] MinimumCoordinateValueRetired = @remove()
set.[5000,0105] MaximumCoordinateValueRetired = @remove()
set.[5000,0106] CurveRangeRetired = @remove()
set.[5000,0110] CurveDataDescriptorRetired = @remove()
set.[5000,0112] CoordinateStartValueRetired = @remove()
set.[5000,0114] CoordinateStepValueRetired = @remove()
set.[5000,1001] CurveActivationLayerRetired = @remove()
set.[5000,2000] AudioTypeRetired = @remove()
set.[5000,2002] AudioSampleFormatRetired = @remove()
set.[5000,2004] NumberOfChannelsRetired = @remove()
set.[5000,2006] NumberOfSamplesRetired = @remove()
set.[5000,2008] SampleRateRetired = @remove()
set.[5000,200a] TotalTimeRetired = @remove()
set.[5000,200c] AudioSampleDataRetired = @remove()
set.[5000,200e] AudioCommentsRetired = @remove()
set.[5000,2500] CurveLabelRetired = @remove()
set.[5000,2600] CurveReferencedOverlaySequenceRetired = @remove()
set.[5000,2610] CurveReferencedOverlayGroupRetired = @remove()
set.[5000,3000] CurveDataRetired = @remove()
set.[6000,3000] OverlayData = @remove()
set.[6000,4000] OverlayCommentsRetired = @remove()
set.[ffff,ffff] DigitalSignaturesSequence = @remove()
set.[fffc,fffc] DataSetTrailingPadding = @remove()

```

## Private Tag Considerations

If the submission is that of a GE CT, the following rule is applied in addition to the default rules:

```
set.[0053,1042] GEPrivateTag = @keep()
```

If the submission is that of a Philips CT, the following rule is applied in addition to the default rules:

```
set.[00e1,1040] PhilipsCTPrivateTag = @keep()
```

If the submission is that of a GE MG, the following rules are applied in addition to the default rules:

```

set.[0045,0010] GEPrivateTag1 = @keep()
set.[0045,1006] GEPrivateTag2 = @keep()
set.[0045,101b] GEPrivateTag3 = @keep()
set.[0045,10a7] GEPrivateTag4 = @keep()

```

If the submission is that of a Hologic MG, the following rules are applied in addition to the default rules:

```

set.[0019,1025] HologicStatusInfo = @keep()
set.[0019,1026] HologicPaddleSize1 = @keep()
set.[0019,1028] HologicPaddleSize2 = @keep()
set.[0019,1029] HologicAECInfo = @keep()
set.[0019,1060] HologicAcqGeoInfo = @keep()
set.[0019,1062] HologicImageProc1Info = @keep()
set.[0019,108a] HologicImageProc2Info = @keep()
set.[0019,1098] HologicImageProc3Info = @keep()
set.[7e01,0010] HologicPrivateTag = @keep()
set.[7e01,1001] HologicPrivateTag = @keep()
set.[7e01,1002] HologicPrivateTag = @keep()
set.[7e01,1010] HologicPrivateTag = @keep()
set.[7e01,1012] HologicPrivateTag = @keep()

```

If the submission is that of a Siemens MG, the following rules are applied in addition to the default rules:

```

set.[0041,1002] SiemensImageTag = @keep()
set.[0051,1032] SiemensMdlOfDet = @keep()
set.[0051,1060] SiemensPosScanArc = @keep()

```

set.[0051,1062] SiemensPosScanStAng = @keep()

If the submission is that of a GE MR, the following rules are applied in addition to the default rules:

set.[0019,10bb] GEPrivateTag = @keep()  
set.[0019,10bc] GEPrivateTag = @keep()  
set.[0019,10bd] GEPrivateTag = @keep()  
set.[0043,1030] GEPrivateTag = @keep()  
set.[0043,1039] GEPrivateTag = @keep()

If the submission is that of a Siemens MR, the following rules are applied in addition to the default rules:

set.[0019,100a] SiemensPrivateTag = @keep()  
set.[0019,100b] SiemensPrivateTag = @keep()  
set.[0019,100c] SiemensPrivateTag = @keep()  
set.[0019,100d] SiemensPrivateTag = @keep()  
set.[0019,100e] SiemensPrivateTag = @keep()  
set.[0019,100f] SiemensPrivateTag = @keep()  
set.[0019,1027] SiemensPrivateTag = @keep()  
set.[0019,1028] SiemensPrivateTag = @keep()

## Image Quarantine

Image metadata headers are inspected when being stored at the ACR. Images that meet any of the following criteria will be quarantined and reviewed, thus being subject to deletion and removal from the final dataset.

1. DICOM Tag (0028,0301) Burned in Annotation is inspected for a value of YES.
2. DICOM Tag (0008,103E) Series Description is inspected for the following values:
  - a. 3D Saved State – AutoSave
  - b. Bayer Injection Images
  - c. Doc
  - d. Document
  - e. Dose Info
  - f. Dose Report
  - g. Exam Summary
  - h. Exam/Series Text Page
  - i. Key Images
  - j. Order
  - k. Order Docs
  - l. ORDER/DOCUMENT
  - m. Patient Protocol
  - n. PET Statistics
  - o. Prior Report
  - p. SCAN
  - q. Screen Save
  - r. Screensave
  - s. Study Docs
  - t. Tracker
3. If the DICOM Tag (0042,0011) Encapsulated Document exists.
4. DICOM Tag (0008,0064) Conversion type is inspected for the following values:
  - a. DF – (Digitized Film)
  - b. DV – (Digitized Video)
  - c. SD – (Scanned Document)

- d. SI – (Scanned Image)
- 5. DICOM Tag (0008,0060) Modality, has any of the following values:
  - a. HC
  - b. KO
  - c. OT
  - d. PR
  - e. SR

Upon review, these images may have pixel cleaning applied, specific images deleted, or may be accepted depending upon SOP.

## Additional Pixel Processing

### Ultrasound

After review of incoming data, should ultrasound images be found with burnt in PHI, there is a process to redact the top portion of the images only based on site, manufacturer, and model information. This must be configured after the review of submitted data and will be applied to all images in the same fashion.

### All Images

Images will be sent through an OCR tool (AWS Rekognition) to report where text may be present in images as potential PHI in the pixel data.

Additionally, images will be manually reviewed using POSDA-Kaleidoscope for potential PHI in the pixel data.

Those images detected with these processes will have the PHI removed from the pixel data or be deleted depending on the nature of the image.

## PHI Disclosure

There is no process in place to remove tech initials from Digital Radiograph markers should they be present. This is compliant with the Standard Operating Procedure: MIDRC Data De-Identification Framework

## Clinical Correlation

To better correlate clinical and imaging data the Patient ID in the DICOM metadata will match the ID placed on the clinical data. The dates on the imaging data, study, series, birthdate, etc. have been date shifted but retain relevance. To note, when multiple DICOM studies are submitted for the same patient, the longitudinally is maintain although the dates are de-identified. Therefore if 2 studies for the same patient occurred 5 days apart, they will be randomized 5 days apart and the patient birthdate remains correlative to the shifted study date.