

Kupní smlouva

1. Smluvní strany

Masarykův onkologický ústav

se sídlem Žlutý kopec 7, 656 53 Brno

zastoupený prof. MUDr. Markem Svobodou, Ph.D., ředitelem

IČO: 00209805, DIČ: CZ00209805

bankovní spojení: Česká národní banka, č. ú.: 87535621/0710

(dále jen „kupující“)

a

NIMOTECH, s.r.o.

se sídlem Šumavská 416/15, Ponava, 602 00 Brno

zastoupená JUDr. Gertrudou Frydovou, prokuristkou

IČO: 18825605, DIČ: CZ18825605

bankovní spojení: UniCredit Bank, a.s., č. ú.: 1031513006/2700

zapsaná v obchodním rejstříku vedeném Krajským soudem v Brně, spisová značka C1292

(dále jen „prodávající“)

na základě vítězství prodávajícího v zadávacím řízení k části 2 veřejné zakázky „*Ultrazvukové přístroje*“ (evidenční číslo [Z2020-041537](#)) zadávané kupujícím uzavírají níže uvedeného dne, měsíce a roku, v souladu s § 2079 a násl. zákona č. 89/2012 Sb., občanský zákoník, ve znění pozdějších předpisů (dále jen „*občanský zákoník*“), tuto kupní smlouvu (dále jen „*smlouva*“).

2. Předmět smlouvy

- 2.1.** Prodávající se zavazuje dodat kupujícímu Samsung Medison RS85 Prestige – digitální barevný ultrazvukový přístroj včetně příslušenství dle specifikace uvedené v příloze č. 1 smlouvy (dále jen „zařízení“), převést na kupujícího vlastnické právo k zařízení a dále:
- provést instalaci / montáž zařízení a uvést zařízení do provozu,
 - provést školení nebo instruktáž dle zákona č. 268/2014 Sb., o zdravotnických prostředcích, ve znění pozdějších předpisů (dále jen „*zákon o zdravotnických prostředcích*“), je-li zařízení zdravotnickým prostředkem rizikové třídy IIb či vyšší, v rozsahu dle doporučení výrobce zařízení, v češtině, v sídle kupujícího,
 - dodat kupujícímu všechny doklady a dokumenty potřebné k převzetí a užívání zařízení v souladu s právními předpisy, zejména:
 - uživatelský manuál / návod k obsluze v tištěné i elektronické podobě v češtině,
 - technický manuál v tištěné i elektronické podobě v češtině,
 - prohlášení o shodě dle zákona č. 22/1997 Sb., o technických požadavcích na výrobky a o změně a doplnění některých zákonů, ve znění pozdějších předpisů (neobsahuje-li toto prohlášení zařazení do klasifikační třídy, pak také prohlášení o zařazení do příslušné klasifikační třídy, popř. kopii rovnocenných dokladů vydaných v členském státě EU včetně překladu do češtiny),
 - odvézt veškeré obaly zařízení a obdobných materiálů.
- 2.2.** Prodávající se v záruční době zařízení zavazuje k provádění a poskytování následujících služeb (dále jen „*služby*“):
- bezpečnostně technické kontroly zařízení,
 - upgrade a update softwaru zařízení.
- 2.3.** Kupující se zavazuje poskytnout prodávajícímu součinnost potřebnou k řádnému a včasnému splnění jeho závazků dle čl. 2.1 a 2.2 smlouvy, a zaplatit prodávajícímu za jejich splnění cenu sjednanou ve smlouvě.

3. Doba a místo dodání zařízení

- 3.1. Prodávající se zavazuje splnit své závazky dle čl. 2.1 smlouvy do 50 dnů ode dne nabytí účinnosti smlouvy.
- 3.2. Prodávající se zavazuje dodat zařízení na Oddělení radiologie Masarykova onkologického ústavu (Žlutý kopec 7, 656 53 Brno, Švejdův pavilon).

4. Předání a převzetí zařízení

- 4.1. Prodávající se zavazuje do 10 dnů ode dne nabytí účinnosti smlouvy zaslat kupujícímu návrh časového harmonogramu splnění závazků dle čl. 2.1 smlouvy (nedohodnou-li se smluvní strany jinak, je dodání, instalace / montáž i předání zařízení možné pouze v pracovních dnech v době od 8.00 do 15.00 h). Smluvní strany si navržený časový harmonogram potvrdí, případně se domluví jinak.
- 4.2. Kupující se zavazuje převzít zařízení, jsou-li závazky prodávajícího dle čl. 2.1 smlouvy splněny řádně (zejména je-li zařízení v souladu se smlouvou, právními předpisy a technickými normami; tj. je-li zařízení dodáno řádně) a včas, v opačném případě (např. vykazuje-li zařízení vady bránící jeho řádnému užívání) není povinen zařízení převzít.
- 4.3. Prodávající se zavazuje o předávacím řízení pořádat ve 2 vyhotoveních zápis obsahující:
 - identifikaci smluvních stran,
 - specifikaci zařízení,
 - prohlášení kupujícího, zda zařízení převzal (bez výhrad / s výhradami) či nepřevzal,
 - datum vyhotovení zápisu,
 - pokud kupující zařízení převezme, je (kupující) do zápisu povinen uvést:
 - datum provedení školení / instruktáže k zařízení,
 - seznam předaných dokladů,
 - vymezení případných vad, se kterými je zařízení převzato (včetně termínů pro jejich odstranění),pokud kupující zařízení nepřevzme, je do zápisu povinen uvést:
 - vymezení důvodů nepřevzetí zařízení.
- 4.4. Smluvní strany obsah zápisu potvrdí podpisy svých zástupců na obou vyhotoveních zápisu, každá smluvní strana obdrží jeden.
- 4.5. Zařízení se považuje za předané / převzaté okamžikem, ve kterém kupující podepíše zápis dle čl. 4.3 smlouvy, ze kterého vyplývá, že kupující zařízení převzal.
- 4.6. Prodávající je povinen na vlastní náklady odvézt veškeré obaly zařízení a obdobné materiály a dále postupovat v souladu se zákonem č. 185/2001 Sb., o odpadech a o změně některých dalších zákonů, ve znění pozdějších předpisů, nedomluví-li se smluvní strany jinak.
- 4.7. Prodávající je pro případ, že kupující v souladu se smlouvou zařízení odmítne převzít, povinen zařízení včetně veškerých obalů zařízení na vlastní náklady odvézt.

5. Přechod vlastnického práva a nebezpečí škody na zařízení

- 5.1. Okamžikem převzetí zařízení kupujícím přechází na kupujícího vlastnické právo k zařízení a nebezpečí škody na zařízení.

6. Odpovědnost za vady, záruka za jakost zařízení

- 6.1. Prodávající odpovídá za vady zařízení, jež má zařízení v době jeho předání, i za vady zjištěné v době záruky za jakost (dříve a dále jen „záruka“ a „záruční doba“).
- 6.2. Prodávající poskytuje na zařízení záruku v délce 24 měsíců. Záruční doba počíná běžet dnem převzetí zařízení kupujícím. Záruční doba se prodlužuje o dobu, po kterou není zařízení provozuschopné z důvodu vad, na něž se vztahuje záruka.

- 6.3. Prodávající se zárukou zavazuje, že zařízení bude v záruční době plně funkční, v souladu se smlouvou, s prohlášeními prodávajícího, s právními předpisy a že bude mít vlastnosti uváděné prodávajícím a výrobcem zařízení.
- 6.4. Kupující je v případě vady zařízení povinen vadu prodávajícímu nahlásit (reklamovat) a uvést, jak se vada projevuje.
- 6.5. V případě vady zařízení má kupující ze strany prodávajícího nárok na / je oprávněn k:
- bezplatné odstranění vady zařízení opravou (vždy),
 - bezplatné odstranění vady zařízení dodáním nového bezvadného zařízení (jedná-li se o nejméně třetí výskyt vady téhož druhu bránící řádnému užívání zařízení nebo i v případě, že se jedná o první či druhý výskyt vady téhož druhu bránící řádnému užívání zařízení, kterou prodávající neodstranil opravou ani do 30 dnů ode dne doručení oznámení kupujícího prodávajícímu, že je v prodlení s opravou dotčené vady), anebo
 - poskytnutí přiměřené slevy z kupní ceny (vždy),
 - odstoupení od smlouvy (v případě, že prodávající neodstranil vadu postupem dle bodu druhého ani do 30 dnů poté, co jej k tomu kupující vyzval).
- 6.6. Prodávající je povinen odstranit vadu za podmínek a v termínech dle čl. 8 a násl. smlouvy, pokud se smluvní strany nedomluví jinak.
- 6.7. Záruka za jakost se prodlouží o dobu, po kterou nebude zařízení provozuschopné z důvodu vad, na něž se vztahuje záruka za jakost.

7. Provádění bezpečnostně technických kontrol a upgradu a updatu softwaru zařízení

- 7.1. Prodávající se zavazuje poskytovat služby dle tohoto článku smlouvy (dále také „*servisní zásahy*“) v termínech dle domluvy s kupujícím, obvykle v pracovní dny v době od 7.00 do 15.00 h.
- 7.2. Prodávající se zavazuje provádět **pravidelné bezpečnostně technické kontroly zařízení** (dále jen „*PBTK*“) alespoň v rozsahu a četnosti dle zákona 268/2014 Sb., o zdravotnických prostředcích, ve znění pozdějších předpisů (dále jen „*zákon o zdravotnických prostředcích*“).
- Prodávající se zavazuje o každé provedené PBTK vypracovat protokol a do 3 dnů od provedení PBTK jej v jednom vyhotovení předat kupujícímu; jedno vyhotovení protokolu si ponechá prodávající.
- 7.3. Prodávající se zavazuje oznámit kupujícímu uvolnění **upgradu a updatu softwaru zařízení** vždy nejpozději do 60 dnů ode dne uvolnění dotčeného upgradu či updatu výrobcem (softwaru) zařízení, do 30 dnů ode dne potvrzení souhlasu kupujícího se zavazuje dotčený upgrade anebo update softwaru zařízení řádně nainstalovat.
- 7.4. Jednotlivé servisní zásahy se považují za řádně provedené dnem podepsání protokolu / servisního výkazu ze strany kupujícího.
- 7.5. Neprovede-li prodávající servisní zásah řádně a včas, je kupující oprávněn zajistit si jeho provedení prostřednictvím jiných dodavatelů, a to nejvýše za cenu na trhu obvyklou, v takovém případě o této skutečnosti prodávajícího neprodleně informuje. Prodávající je následně povinen kupujícímu takto provedený servisní zásah uhradit, a to do 10 dní ode dne doručení faktury prodávajícímu (kupující zároveň předloží kupujícímu doklad o úhradě servisního zásahu). Od okamžiku oznámení kupujícího prodávajícímu, že bude postupovat dle tohoto odstavce, se doba prodlení prodávajícího s provedením servisního zásahu nezvyšuje.

8. Odstraňování vad zařízení

- 8.1. Kupující je v případě vady zařízení povinen vadu prodávajícímu nahlásit a uvést, jak se vada projevuje. Kupující je dále oprávněn uvést, zda vada vylučuje či omezuje klinický provoz

zařízení (pokud kupující v konkrétním případě výslovně neuvede opak, má se za to, že vada klinický provoz vylučuje).

8.2. Prodávající je v případě nahlášení vady zařízení povinen vadu zařízení bezplatně odstranit opravou, příp. dodáním nového bezvadného zařízení (volba náleží prodávajícímu).

8.3. Prodávající je povinen odstranit vadu v následujících termínech:

Vada	Termín pro odstranění vady
vylučující klinický provoz	do 12 hodin od nahlášení vady
omezující klinický provoz	do 24 hodin od nahlášení vady
neomezující klinický provoz	do 72 hodin od nahlášení vady

8.4. V případě, že prodávající prokáže kupujícímu, že je nutné dodat náhradní díly ze zahraničí, prodlužuje se tato lhůta na 2násobek, pokud se smluvní strany nedomluví jinak. Doba pro odstranění vad běží (pouze) v pracovní době kupujícího, tj. pouze v pracovní dny v době od 8.00 do 17.00 h (případně prodloužení se tedy také počítá pouze v této době).

8.5. Po odstranění vady je prodávající povinen předat kupujícímu servisní výkaz (dále také „výkaz“), ve kterém bude vymezena dotčená vada, způsob a čas jejího odstranění. Pokud je vada skutečně odstraněna, kupující výkaz neprodleně potvrdí (podepíše). Vada se považuje za odstraněnou okamžikem uvedeným ve výkazu (ze kterého vyplývá, že vada byla odstraněna), pokud tento okamžik není ve výkazu uveden, pak okamžikem potvrzení výkazu kupujícím. V případě, že kupující nebude s obsahem výkazu souhlasit, je oprávněn vznést k výkazu své připomínky. Prodávající je povinen se k těmto vyjádřit nejpozději do 2 dnů ode dne jejich doručení. V případě, že prodávající tyto připomínky akceptuje nebo v případě marného uplynutí uvedené doby, se výkaz považuje za odsouhlasený ve znění připomínek kupujícího. V případě, že připomínky kupujícího prodávající neakceptuje, zavazují se smluvní strany vyvinout maximální součinnost, aby došlo ke shodě.

9. Komunikace smluvních stran, řešení sporů

9.1. Veškerá jednání a komunikace mezi smluvními stranami bude probíhat přednostně prostřednictvím osob a kontaktních údajů vymezených v příloze č. 3 smlouvy. V této příloze jsou rovněž vymezena oprávnění těchto osob.

9.2. Smluvní strany jsou případné spory související se smlouvou povinny řešit přednostně smírnou cestou. Nedojde-li k vyřešení sporu smírnou cestou, je každá ze smluvních stran oprávněna přistoupit k řešení sporu soudní cestou. Smluvní strany v souladu s § 89a zákona č. 99/1963 Sb., občanský soudní řád, ve znění pozdějších předpisů, sjednávají jako místně příslušný soud Městský soud v Brně. Smluvní strany dále sjednávají, že smlouva a veškeré nároky nebo spory vzniklé na jejím základě nebo v souvislosti s ní (včetně mimosmluvních sporů a nároků) se budou řídit českým právem a budou vykládány v souladu s právními předpisy České republiky.

10. Další práva a povinnosti prodávajícího

10.1. Prodávající je povinen poskytovat služby v souladu s právními předpisy, zejména zákonem o zdravotnických prostředcích. Prodávající je v této souvislosti povinen provádět / poskytovat služby výhradně prostřednictvím osob k tomu v souladu s právními předpisy oprávněných.

10.2. Prodávající je povinen před zahájením provádění / poskytování jakékoli služby uvědomit o svém příchodu kupujícího.

10.3. Prodávající je povinen používat při poskytování služeb dle smlouvy výhradně svoje vlastní vybavení (včetně měřicí techniky) a spotřební materiál.

10.4. Prodávající nenese zodpovědnost za poškození zdraví lidí zařízením nebo poškození zařízení, pokud k nim dojde z důvodu, že:

- o kupující při provozu zařízení nedodržel instrukce výrobce zařízení uvedené v dokladech dodaných prodávajícím,

- kupující zařízení použil k jiným účelům, než k jakým je určeno,
- kupující prodávajícímu neumožnil provádění / poskytování služeb v souladu se smlouvou,
- služby z důvodů na straně kupujícího prováděla / poskytovala jiná osoba než prodávající.

11. Další práva a povinnosti kupujícího

- 11.1.** Kupující je povinen používat zařízení v souladu s instrukcemi výrobce zařízení uvedenými v dokladech dodaných prodávajícím.
- 11.2.** Kupující je povinen v dohodnutých termínech zajistit, aby zařízení bylo připraveno k provedení servisního zásahu, a umožnit servisnímu technikovi prodávajícího přístup k zařízení.
- 11.3.** Kupující je povinen po celou dobu servisního zásahu na zařízení zajistit přítomnost pověřené osoby a poskytnout prodávajícímu přístrojový deník zařízení.

12. Kupní cena, cena služeb, platební podmínky

- 12.1.** Celková cena za splnění závazků prodávajícího dle čl. 2.1 smlouvy (dále jen „kupní cena“) činí:

Kupní cena bez DPH: 2 170 615,20 Kč

DPH 21 %: 455 829,19 Kč

Kupní cena včetně DPH: 2 626 444,39 Kč

Rozklad kupní ceny dle jednotlivých položek včetně informace o jednotkových cenách a množství jednotlivých položek je uveden v příloze č. 2 smlouvy (*Rozklad kupní ceny*).

- 12.2.** Kupní cena zahrnuje veškeré náklady prodávajícího související se splněním dotčených závazků a je stanovena jako konečná a nepřekročitelná. V případě změny sazby DPH se výše kupní ceny včetně DPH a vlastní DPH upraví dle právních předpisů účinných ke dni uskutečnění zdanitelného plnění.
- 12.3.** Kupní cena bude uhrazena na základě faktury vystavené prodávajícím po převzetí zařízení kupujícím s dobou splatnosti do 30 dnů ode dne doručení faktury kupujícímu.
- 12.4.** Cena za poskytování služeb dle čl. 2.2 smlouvy činí **337,50 Kč bez DPH měsíčně** (dále jen „cena služeb“).
- 12.5.** V ceně služeb jsou zahrnuty veškeré náklady prodávajícího spojené s plněním smlouvy (včetně cestovních).
- 12.6.** Cena služeb bude hrazena na základě faktur vystavovaných prodávajícím k poslednímu dni každého kalendářního roku), a to zpětně. Cena služeb je splatná do 30 dní ode dne doručení faktury kupujícímu. V případě, že v dotčeném období jsou služby poskytovány pouze v části roku (typicky rok zahájení a ukončení poskytování služeb), je prodávající oprávněn za tento rok fakturovat cenu služeb pouze v poměrné výši. DPH bude dopočítána a uhrazena ve výši dle právních předpisů účinných ke dni uskutečnění zdanitelného plnění.
- 12.7.** Faktury musí splňovat požadavky daňového dokladu a být v souladu s právními předpisy, zejména se zákonem č. 235/2004 Sb., o dani z přidané hodnoty, ve znění pozdějších předpisů (dále jen „ZodPH“). Na faktuře musí být uveden název a evidenční číslo veřejné zakázky: „*Ultrazvukové přístroje – část 2*“ (evidenční číslo [Z2020-041537](#))“.
- 12.8.** Nebude-li faktura obsahovat náležitosti dle právních předpisů, popř. bude-li obsahovat jiné chyby či nedostatky, je kupující oprávněn fakturu vrátit, přičemž nová doba splatnosti počíná běžet dnem doručení opravené faktury kupujícímu.
- 12.9.** Bude-li kupující k datu uskutečnění zdanitelného plnění či k datu poskytnutí úplaty za něj dle ZoDPH ručit za nezaplacenou DPH (§ 109 ZoDPH) ze strany prodávajícího, je oprávněn část kupní ceny/ ceny služeb odpovídající DPH uhradit přímo na bankovní účet příslušného

správce daně. Část kupní ceny / ceny služeb odpovídající DPH se v takovém případě považuje za uhrazenou.

13. Smluvní sankce

- 13.1.** Kupující je za každý započatý den prodlení s úhradou kupní ceny a ceny služeb povinen uhradit prodávajícímu úrok z prodlení ve výši dle nařízení vlády č. 351/2013 Sb.
- 13.2.** Prodávající je za každý započatý den prodlení s dodáním zařízení povinen uhradit kupujícímu smluvní pokutu 2.000 Kč.
- 13.3.** Prodávající je za každou započatou hodinu prodlení s odstraněním vady zařízení povinen uhradit kupujícímu smluvní pokutu 500 Kč (vylučující klinický provoz), 400 Kč (omezuující klinický provoz) a 200 Kč (neomezuující klinický provoz).
- 13.4.** Prodávající je za každý započatý den prodlení s provedením PBTk zařízení povinen uhradit kupujícímu smluvní pokutu 4.500 Kč.
- 13.5.** Prodávající je za každý započatý den prodlení s provedením updatu či upgradu softwaru zařízení povinen uhradit kupujícímu smluvní pokutu ve výši 50 Kč.
- 13.6.** Prodávající je povinen uhradit kupujícímu smluvní pokutu do 10 dnů ode dne doručení jejího vyúčtování prodávajícímu.
- 13.7.** Zaplacení jakékoli z výše uvedených smluvních pokut se nedotýká nároku kupujícího na náhradu škody ve výši přesahující smluvní pokutu.

14. Platnost a účinnost smlouvy, změny smlouvy

- 14.1.** Smlouva nabývá platnosti dnem jejího podpisu oběma smluvními stranami a účinnosti jejím zveřejněním dle zákona č. 340/2015 Sb., o registru smluv, ve znění pozdějších předpisů (dále jen „zákon o registru smluv“).
- 14.2.** Plnění předmětu smlouvy před účinností smlouvy se považuje za plnění dle smlouvy a práva a povinnosti z něj vzniklé se řídí smlouvou.
- 14.3.** Smlouvu lze změnit výhradně dohodou smluvních stran v písemné formě podepsanou oběma smluvními stranami, přednostně prostřednictvím vzestupně číslovaných dodatků. Výjimkou je změna adresy sídla a kontaktních údajů, v takovém případě postačuje oznámení dotčené smluvní strany doručené v písemné formě druhé smluvní straně, v případě změny adresy sídla spolu s doklady prokazujícími oznamovanou změnu; ke změně smlouvy dochází dnem doručení oznámení druhé smluvní straně.
- 14.4.** Prodávající je oprávněn převést svoje práva a povinnosti ze smlouvy vyplývající na jinou osobu pouze s písemným souhlasem kupujícího.
- 14.5.** Smluvní strany se nad rámec § 576 občanského zákoníku pro případ neplatnosti některého z ustanovení smlouvy či celé smlouvy zavazují, že si poskytnou potřebnou součinnost k uzavření dohody, kterou by dotčené ustanovení, případně celou smlouvu, nahradily tak, aby obsah a účel smlouvy zůstal v nejvyšší možné míře zachován.
- 14.6.** Každá ze smluvních stran je oprávněna od smlouvy odstoupit v případě podstatného porušení smlouvy druhou smluvní stranou. Na straně kupujícího se za podstatné porušení smlouvy považuje jeho prodlení s úhradou kupní ceny přesahující 60 dnů. Na straně prodávajícího se za podstatné porušení smlouvy považuje zejména jeho prodlení s řádným dodáním zařízení přesahujícím 30 dnů a situace popsaná v čl. 6.5 smlouvy. Odstoupením od smlouvy se smlouva rozvazuje dnem doručení písemného odstoupení druhé smluvní straně.

15. Závěrečná ujednání

- 15.1.** Smlouva je vyhotovena ve dvou vyhotoveních, každá smluvní strana obdrží jedno.

- 15.2.** V otázkách výslovně neupravených smlouvou se závazky smluvních stran řídí právním řádem ČR, zejména § 2079 a násl. občanského zákoníku upravujícími kupní smlouvu.
- 15.3.** Smluvní strany souhlasí se zveřejněním smlouvy a případných dohod (dodatků), kterými se smlouva doplňuje, mění, nahrazuje nebo ukončuje, zejména postupem dle zákona o registru smluv. Smlouvu v registru smluv uveřejní kupující, prodávající (správnost) uveřejnění do 1 měsíce od uzavření smlouvy ověří a na případné nedostatky kupujícího upozorní.
- 15.4.** Proávající bere na vědomí, že je v souladu s § 2 písm. e) zákona č. 320/2001 Sb., o finanční kontrole ve veřejné správě, osobou povinnou spolupůsobit při výkonu finanční kontroly. Proávající se zavazuje poskytnout kontrolním orgánům při provádění kontroly maximální součinnost. Proávající se ke stejnému spolupůsobení a poskytování součinnosti kontrolním orgánům zavazuje zavázat rovněž své poddodavatele.
- 15.5.** Nedílnou součástí smlouvy jsou následující přílohy:
- Příloha č. 1 – *Technická specifikace zařízení,*
 - Příloha č. 2 – *Rozklad kupní ceny,*
 - Příloha č. 3 – *Kontaktní údaje.*
- 15.6.** Smluvní strany prohlašují, že si tuto smlouvu před jejím podpisem přečetly a že s jejím obsahem souhlasí, na důkaz výše uvedeného připojují své vlastnoruční podpisy.

V Brně dne

V Brně dne

za kupujícího:
prof. MUDr. Marek Svoboda, Ph.D.
ředitel Masarykova onkologického ústavu

za prodávajícího:
JUDr. Gertruda Frydová
prokuristka NIMOTECH, s.r.o.

Technická specifikace zařízení

OBEČNÉ POŽADAVKY		
Požadavek:	Splňuje	Poznámky
Plně digitální přístroj s digitálním formátováním UZ svazku.	ANO	
Frekvenční rozsah přístroje min. 1–18 MHz.	ANO	1-22MHz
Pojízdný přístroj s možností aretace v požadované poloze pomocí jedné centrální brzdy aretující min. 2 kola.	ANO	
Minimálně 4 konektory pro současné aktivní připojení 2D/3D/4D zobrazovacích sond + jeden parkovací.	ANO	4+1
System nahřívání USG gelu.	ANO	
„Body mark“ – trup ženský, trup mužský.	ANO	
Integrované reproduktory pro akustickou signalizaci krevního toku.	ANO	
Napájení přístroje 230 V / 50 Hz.	ANO	
DIAGNOSTICKÝ MONITOR		
Požadavek:	Splňuje	Poznámky
Diagnostický monitor typu LCD/TFT s LED podsvícením, velikost úhlopříčky min. 23,5“ s poměrem stran 16:9 a rozlišovací schopností min. 1920 × 1080.	ANO	23,8“, FULL HD
Poloha monitoru stavitelná jednou rukou ve všech směrech nezávisle na ovládacím panelu přístroje pro zajištění optimálních pozorovacích podmínek.	ANO	
Vlastní diagnostický obraz 2D zobrazení na monitoru musí být o velikosti min. 20 × 20 cm v základním (nezvětšeném) zobrazení.	ANO	>20x20cm
OVLÁDACÍ PANEL		
Požadavek:	Splňuje	Poznámky
Elektronicky výškově stavitelný plovoucí ovládací panel.	ANO	
Ovládání pomocí trackballu, nikoliv dotykového touchpadu.	ANO	
Výsuvná mechanická QWERTY klávesnice pod ovládacím panelem.	ANO	
Součástí ovládacího panelu musí být polohovatelný (sklopný) barevný dotykový LCD displej o rozměru min. 13“ umožňující zjednodušené ovládání přístroje a měření.	ANO	13,3“
Ovládání TGC pomocí dotykového displeje s možností uložení do paměti a uživatelského presetu.	ANO	
ZOBRAZOVACÍ REŽIMY		
Požadavek:	Splňuje	Poznámky
B-mód na základních a harmonických frekvencích na všech sondách (lineární, konvexní) s možností volby více harmonických frekvencí bez vlivu na snímkovací rychlost.	ANO	
Dopplerovské zobrazení rychlosti krevního toku s nemodulovanou (CW) a impulsně modulovanou (PW) nosnou vlnou vč. spektrálního dopplerovského záznamu na všech sondách.	ANO	
PW doppler s vysokou opakovací frekvencí (High - PRF) na všech sondách.	ANO	
PW doppler s možností steeringu na lineární sondě.	ANO	
Barevné dopplerovské zobrazení rychlosti krevního toku (CFM) se zobrazením rychlostní škály v cm/s včetně zobrazení energie krevního toku (power doppler , angio doppler).	ANO	

Barevné širokopásmové dopplerovské zobrazení krevního průtoku s vysokou rozlišovací schopností a obrazovou rychlostí (HD Flow, Dynamic-Flow).	ANO	
Nedopplerovské zobrazení průtoků s vyšší citlivostí.	ANO	MV-flow
Simultánní duální zobrazení B-mód a B-mód + CFM v reálném čase.	ANO	
Rychlé simultánní duplexní (B-mode + PW) i triplexní zobrazení (B - mode + PW/CW + CFM) v reálném čase.	ANO	
Trapezoidní zobrazení na lineárních sondách.	ANO	
Modul pro kontrastní harmonické zobrazení CEUS za pomoci intravenozních kontrastních látek včetně možnosti kvantifikace i na uložených datech.	ANO	CEUS+
Software pro zvýraznění jehly při punkci.	ANO	Needle Mate+
PROGRAMOVÉ VYBAVENÍ		
Požadavek:	Splňuje	Poznámky
Automatická optimalizace obrazu pro B-mód a dopplerovské zobrazení vč. jeho kontinuální optimalizace.	ANO	
Programové vybavení pro provádění všech typů měření používaných v sonografické diagnostice (délka, plocha, objem, úhel, IMT, % stenózy).	ANO	
Automatické měření a vyhodnocování parametrů dopplerovského spektra (PI, RI, Vmax, Vmin, SDI) ve zmrazeném záznamu i v aktivním režimu během snímání.	ANO	
Automatické zvětšení okolí kurzoru při měření.	ANO	
Možnost měření v živém i ve zmrazeném režimu.	ANO	
Zvětšování a zmenšování zobrazovacího pole s kontinuálním posunem zvětšeného obrazu, možnost zvětšování obrazu i ve zmrazeném režimu.	ANO	
Možnost zvětšení zájmové oblasti s vysokou rozlišovací schopností (zoom s vysokou citlivostí).	ANO	
Redukce strukturálního šumu v několika úrovních v B i CFM zobrazení (možnost nastavení redukce v několika úrovních).	ANO	
Úhlové (kompaundní) zobrazení na všech sondách zajišťující nejvyšší kvalitu zobrazení – možnost nastavení ve více krocích (nejen on/off).	ANO	
SONDOVÉ VYBAVENÍ		
Požadavek:	Splňuje	Poznámky
Konvexní sonda pro abdominální vyšetření, frekvenční rozsah min. 1 – 6 MHz, FOV 70°. K zajištění vyšetření i silně obézních pacientů požadována maximální hloubka 2D zobrazení min. 40 cm.	ANO	1-7MHz, >70°, >40cm [CA1-7S]
Lineární sonda pro vyšetření blízkých struktur (měkké tkáně malých rozměrů – štítná žláza, prsa), frekvenční rozsah min. 2–14 MHz, aktivní šíře ≥ 50 mm.	ANO	2-14MHz, 50mm [LA2-14A]
Lineární sonda pro vyšetření blízkých struktur (měkké tkáně malých rozměrů – skrótum), frekvenční rozsah min. 6–18 MHz, aktivní šíře max. 40 mm.	ANO	4-18MHz, 38mm [LA4-18B]
Lineární sonda pro cévní dopplerovská vyšetření, frekvenční rozsah min. 2–9 MHz, aktivní šíře max. 45 mm.	ANO	2-9MHz, 45mm [LA2-9A]
ARCHIVACE OBRAZOVÝCH DAT		
Požadavek:	Splňuje	Poznámky
Archivace obrazových dat v původní formě v paměti přístroje (zachovávající obrazové parametry pro pozdější hodnocení).	ANO	

Přístroj musí vytvářet vlastní databázi patientských a obrazových dat na interní HDD (s kapacitou min. 1000 GB) a s možností vyhledávání dle jména pacienta, vyšetřujícího, data vyšetření, diagnózy nebo typu vyšetření apod.	ANO	1TB
Paměť přístroje pro uložení alespoň 3000 snímků.	ANO	>3000 sn.
Paměťová smyčka pro uložení dopplerovského záznamu délky alespoň 30 sec	ANO	10min.
Min 1× USB 3.0 výstup nebo min. 2× USB 2.0 výstup pro připojení externích paměťových zařízení typu Flash.	ANO	2x USB3.0, 4x USB 2.0
Možnost exportu obrazových dat a reportů na externí média min. ve formátech: JPEG, AVI, MPEG, DICOM.	ANO	JPEG, AVI, TIFF, MPEG, DICOM
Plná DICOM konektivita dle DICOM Conformance Statement kupujícího (viz část b této přílohy).	ANO	
Komunikace s PACS a DICOM Modality Worklistem kupujícího, dle jeho DICOM Conformance Statement (viz část b této přílohy), síťový protokol TCP/IP, síťová karta minimálně 1 Gb/s.	ANO	
PODPORA PŘÍSTROJE		
Požadavek:	Splňuje	Poznámky
Podpora sond typu single crystal, matrix a 3D/4D sond.	ANO	
Podpora elastografie typu „Shear Wave“ (metoda střížné vlny) pro posuzování malignity prsní tkáně na základě zobrazení a hodnocení elasticity pomocí lineární sondy a vyhodnocování stupně postižení jaterní tkáně pomocí abdominální sondy.	ANO	S-shearwave
Podpora synchronizovaného zobrazení ultrazvukového vyšetření s vyšetřením stejné oblasti provedeným na CT nebo MRI přístroji v reálném čase na monitoru ultrazvukového přístroje pro abdominální oblast i prostatu.	ANO	S-fusion
Podpora SW pro hodnocení jaterní tkáně: zobrazení útlumu UZ signálu a hepato-renálního poměru.	ANO	HRI+

Samsung RS85 Prestige

Produktový list



PL-RS85 Prestige-1.00-USS-RS85F4K/WR-200913-CZ

RS85 Ultrasound System

DICOM Conformance Statement

System Version 1.06.01 / 2.03.01

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0 COVER PAGE

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1 CONFORMANCE STATEMENT OVERVIEW

RS85 implements the necessary DICOM services to download worklists from information systems, save acquired US images and Structured Reports to a network storage device, CD or DVD, print to a networked hardcopy device, query remote AE's for lists of studies or series, retrieve selected series, and inform the information system about the work actually done.

Table 1-1 provides an overview of the network services supported by RS85.

**Table 1-1
NETWORK SERVICES**

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
Transfer		
Ultrasound Image Storage	Yes	Yes
Ultrasound Multi-frame Image Storage	Yes	Yes
Comprehensive SR	Yes	No
Workflow Management		
Modality Worklist	Yes	No
Storage Commitment Push Model	Yes	No
Modality Performed Procedure Step	Yes	No
Print Management		
Basic Grayscale Print Management	Yes	No
Basic Color Print Management	Yes	No
Query/Retrieve		
Study Root Information Model FIND	Yes	No
Study Root Information Model MOVE	Yes	No

Table 1-2 provides an overview of the Media Storage Application Profiles supported by RS85.

**Table 1-2
MEDIA SERVICES**

Media Storage Application Profile	Write Files (FSC or FSU)	Read Files (FSR)
Compact Disk – Recordable		
STD-US-SC-MF-CDR	Yes	Yes
DVD		
STD-US-SC-MF-DVD	Yes	Yes

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3 INTRODUCTION

3.1 REVISION HISTORY

System Version	Date of Issue	Author	Description
1.0	October 20, 2017	SAMSUNG MEDISON	Final Text for System 1.0
1.01	January 15, 2018	SAMSUNG MEDISON	Support DICOM TLS (FIPS 140-2) Support Jpeg lossless for Image storage SCU Delete Measurement Methods in Vascular (Don't need it)
1.02	July 31, 2018	SAMSUNG MEDISON	Fix invalid spelling on DCS
1.03	September 18, 2018	SAMSUNG MEDISON	Add BI-RADS 2013 classifications in Breast SR Add THYROID IMAGING STRUCTURED REPORT TEMPLATE Support ISO_IR 192 (Unicode in UTF-8) Add cine resolutions (1024x768, 1280x720)
1.03	November 08, 2018	SAMSUNG MEDISON	Fix invalid marks on "Table Worklist Request Identifier"
1.05	April 09, 2019	SAMSUNG MEDISON	Add IOTA-ADNEX Private Tags Add BTA classifications in Thyroid SR Add FETAL ECHO STRUCTURED REPORT TEMPLATE Add PEDIATIRC STRUCTURED REPORT TEMPLATE
2.0	December 17, 2019	SAMSUNG MEDISON	Add New Measurement items tag in DICOM SR Add private tags for requesting worklist
1.06.01/ 2.03.01	December 2, 2020	SAMSUNG MEDISON	Add Other Patient IDs (retired) and Other Patient IDs Sequence (Optional) for requesting worklist and Sending IOD to Storage. Add MSK application in SR Add Sharewave in SR

3.2 AUDIENCE

This document is intended for hospital staff, health system integrators, software designers or implementers. It is

assumed that the reader has a working understanding of DICOM.

3.3 REMARKS

DICOM, by itself, does not guarantee interoperability. However, the Conformance Statement facilitates a first-level validation for interoperability between different applications supporting the same DICOM functionality.

This Conformance Statement is not intended to replace validation with other DICOM equipment to ensure proper exchange of information intended.

The scope of this Conformance Statement is to facilitate communication with SAMSUNG MEDISON and other vendor's Medical equipment. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [DICOM]. However, it is not guaranteed to ensure by itself the desired interoperability and a successful interconnectivity.

The user should be aware of the following important issues:

- The comparison of different conformance statements is the first step towards assessing interconnectivity between SAMSUNG MEDISON and non – SAMSUNG MEDISON equipment.
- Test procedures should be defined to validate the desired level of connectivity.
- The DICOM Standard will evolve to meet the users' future requirements. SAMSUNG MEDISON is activity involved in developing the standard further and therefore reserves the right to make changes to its products or to discontinue their delivery.

3.4 DEFINITIONS, TERMS AND ABBREVIATIONS

Definitions, terms and abbreviations used in this document are defined within the different parts of the DICOM Standard.

Abbreviations and terms are as follows:

AE	DICOM Application Entity
AET	Application Entity Title
ASCE	Association Control Service Element
CD-R	Compact Disk Recordable
FSC	File-Set Creator
FSU	File-Set Updater
FSR	File-Set Reader

IOD	(DICOM) Information Object Definition
ISO	International Standard Organization
MPPS	Modality Performed Procedure Step
MSPS	Modality Scheduled Procedure Step
Q/R	Query and Retrieve
R	Required Key Attribute
O	Optional Key Attribute
PDU	DICOM Protocol Data Unit
SCU	DICOM Service Class User (DICOM client)
SCP	DICOM Service Class Provider (DICOM server)
SOP	DICOM Service-Object Pair
U	Unique Key Attribute

3.5 REFERENCES

[DICOM] Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1–3.20, 2017

4 NETWORKING

4.1 IMPLEMENTATION MODEL

4.1.1 Application Data Flow

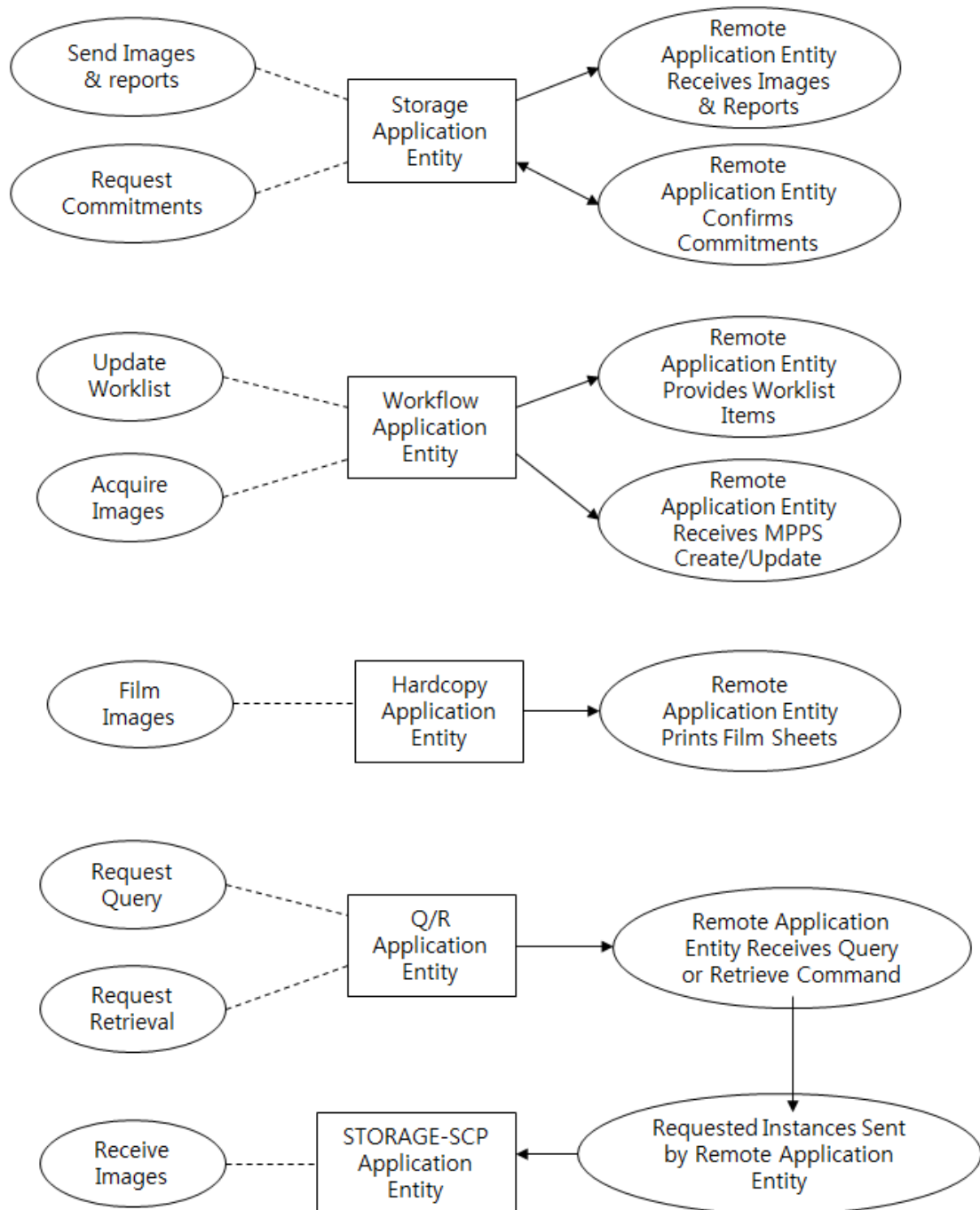


Figure 4.1-1
APPLICATION DATA FLOW DIAGRAM

- The Storage Application Entity sends images, Structured Reports and requests Storage Commitment to a remote AE. It is associated with the local real-world activities “Send Images & Reports” and “Request Commitments”. Methods to send SOP Instances (images and Structured Reports) depend on user configuration, “Send on end exam”, “Send As You Go” or “Manual”. “Manual” mode is performed upon user request for each study or for specific images selected. “Send on end exam” mode starts to send SOP Instances at End Exam for each study. “Send As You Go” mode starts when the first SOP Instance is acquired for each study and SOP Instances are transferred immediately after acquisition.

If the remote AE is configured as an archive device, the Storage AE will request Storage Commitment and if a commitment is successfully obtained, it will record this information in the local database and displayed it in the Exam List.

- The Workflow Application Entity receives Worklist information from and sends MPPS information to a remote AE. It is associated with the local real-world activities “Update Worklist” and “Acquire Images”. When the “Update Worklist” local real-world activity is performed the Workflow Application Entity queries a remote AE for worklist items and provides the set of worklist items matching the query request. “Update Worklist” is performed as a result of an operator request or can be performed automatically at specific time intervals. When the “Acquire Images” local real-world activity is performed, the Workflow Application Entity creates and updates Modality Performed Procedure Step instances managed by a remote AE. Acquisition of images will result in automated creation of an MPPS Instance. Completion of the MPPS is performed at End Exam for each study.
- The Hardcopy Application Entity prints images on a remote AE (Printer). It is associated with the local real-world activity “Film Images”. Methods to film Images depend on user configuration and are equal to the Sending images’ of the Storage Application Entity.
- The Q/R Application Entity queries the remote AE for lists of studies or series and retrieves the selected series. It is associated with the local real-world activities ‘Query study or series’ and ‘Retrieve series’. When the ‘Query study or series’ local real-world activity is performed, the Q/R Application Entity queries a remote AE for a list of studies or series and provides the set of items matching the query request. When the ‘Retrieve series’ local real-world activity is performed, the Q/R Application Entity retrieves the selected series from the remote AE.
- The STORAGE-SCP Application Entity can receive incoming DICOM images and store them in the system.

4.1.2 Functional Definition of AE's

4.1.2.1 Functional Definition of Storage Application Entity

The existence of a send-job with associated network destination will activate the Storage AE. An association request is sent to the destination AEs and upon successful negotiation of a Presentation Context, the image or Structured Report transfer is started. If the association cannot be opened, the related send-job is set to an error state and can be restarted by the user via DICOM manager interface or automatically. An automatic retry (retry interval, retry count) can be configured using the Setup/DICOM Menu.

4.1.2.2 Functional Definition of Workflow Application Entity

Worklist Update attempts to download a Worklist from a remote node. If the Workflow AE establishes an association to a remote AE, it will transfer all matching worklist items via the open Association. By default, Worklist Update use "US" for Modality, current date for Scheduled Procedure Step Start Date and blank for Scheduled Station AE-Title as query parameters. The results will be displayed in a separate list, which will be cleared with the next Worklist Update.

The Workflow AE performs the creation of an MPPS Instance automatically whenever the first SOP Instance is acquired for each study. The MPPS "Complete" or "Discontinued" states can only be set by "End Exam" for each study.

4.1.2.3 Functional Definition of Hardcopy Application Entity

The existence of a print-job will activate the Hardcopy AE. An association is established with the printers and the printer's status determined. If the printer is operating normally, the film sheets described within the print-job will be printed. If the printer is not operating normally, the print-job will set to an error state and can be restarted by the user via DICOM manager interface or automatically. An automatic retry (retry interval, retry count) can be configured using the Setup/DICOM Menu.

4.1.2.4 Functional Definition of the Q/R Application Entity

The Query function is activated through the user interface when the user selects a Q/R AE to query (from a pre-configured list), then initiates a query. Queries are performed per the study or series. Retrieval is activated through the user interface when the user selects a series for retrieval. A connection to the Q/R AE is established to initiate and monitor the retrieval and the STORAGE-SCP AE receives the retrieved instances.

4.1.2.5 Functional Definition of STORAGE – SCP Application Entity

The STORAGE-SCP AE waits for another application to connect from the presentation address configured for its AE Title. When another application connects, the STORAGE-SCP AE expects it to be a DICOM application. The STORAGE-SCP AE will accept associations with presentation contexts for SOP Classes of the Storage Device. Any images received in such Presentation Contexts will be stored in the system.

4.1.3 Sequencing of Real-World Activities

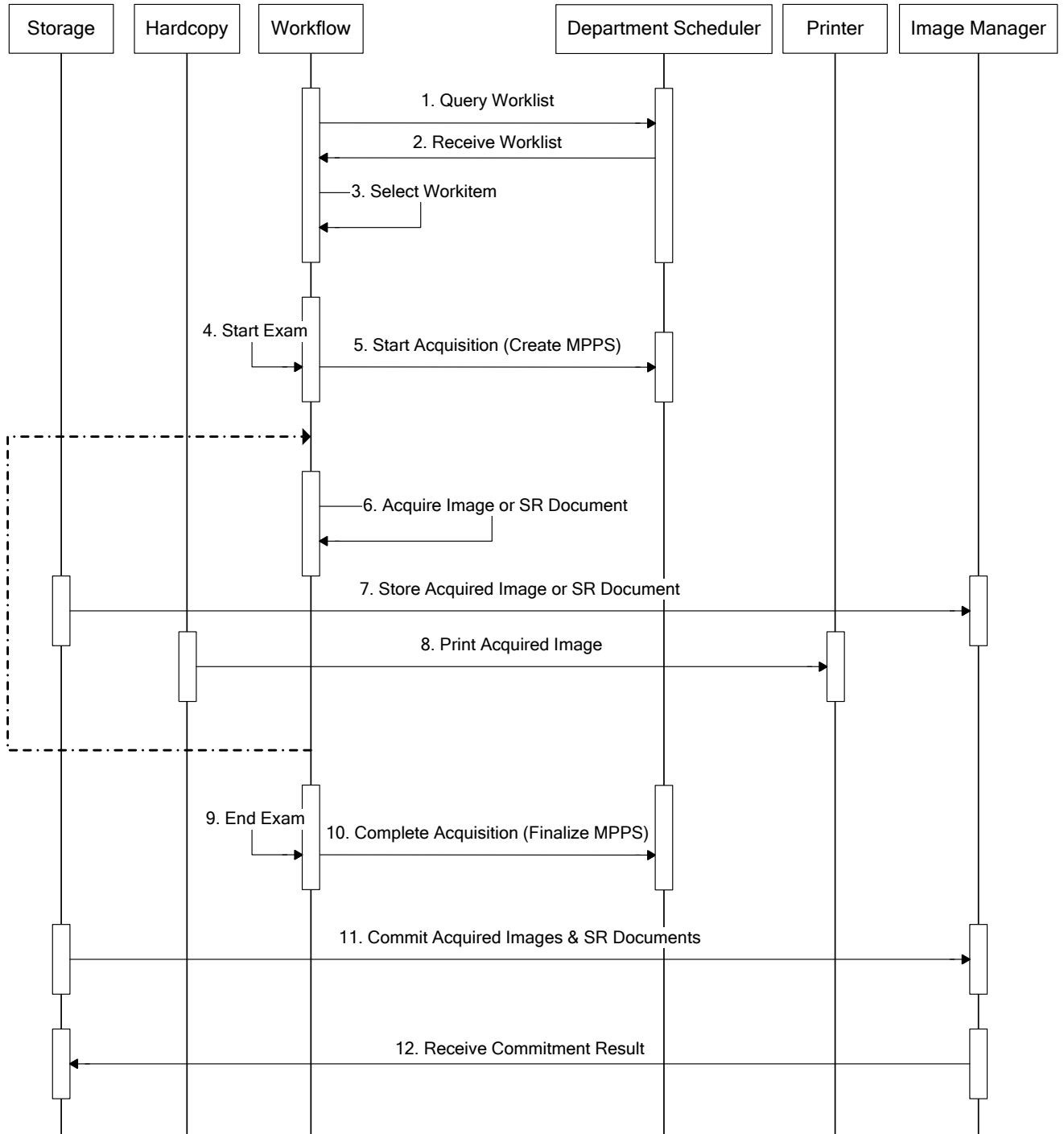


Figure 4.1-2
SEQUENCING CONSTRAINTS – SEND AS YOU GO

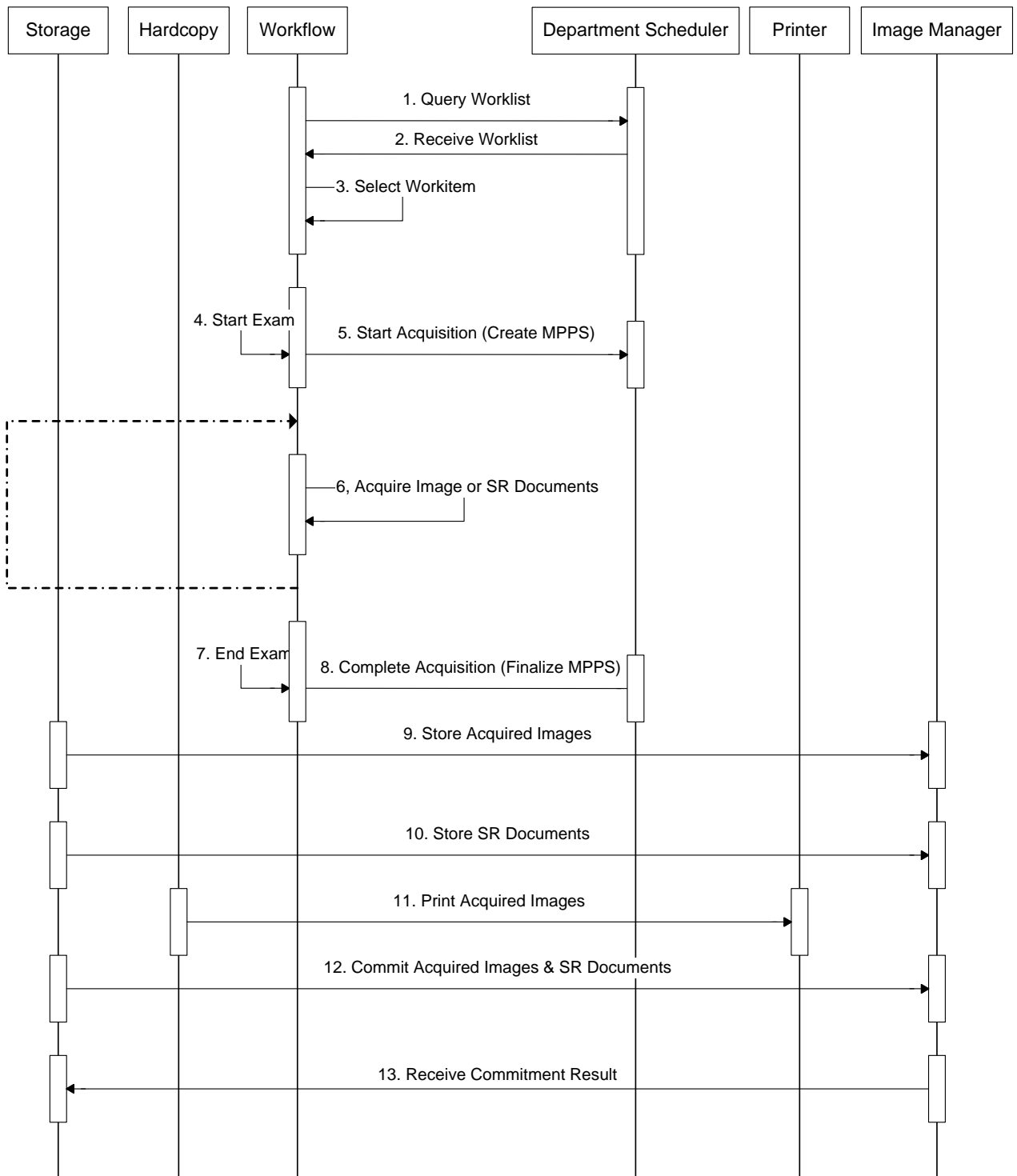


Figure 4.1-3
SEQUENCING CONSTRAINTS – SEND ON END EXAM MODE

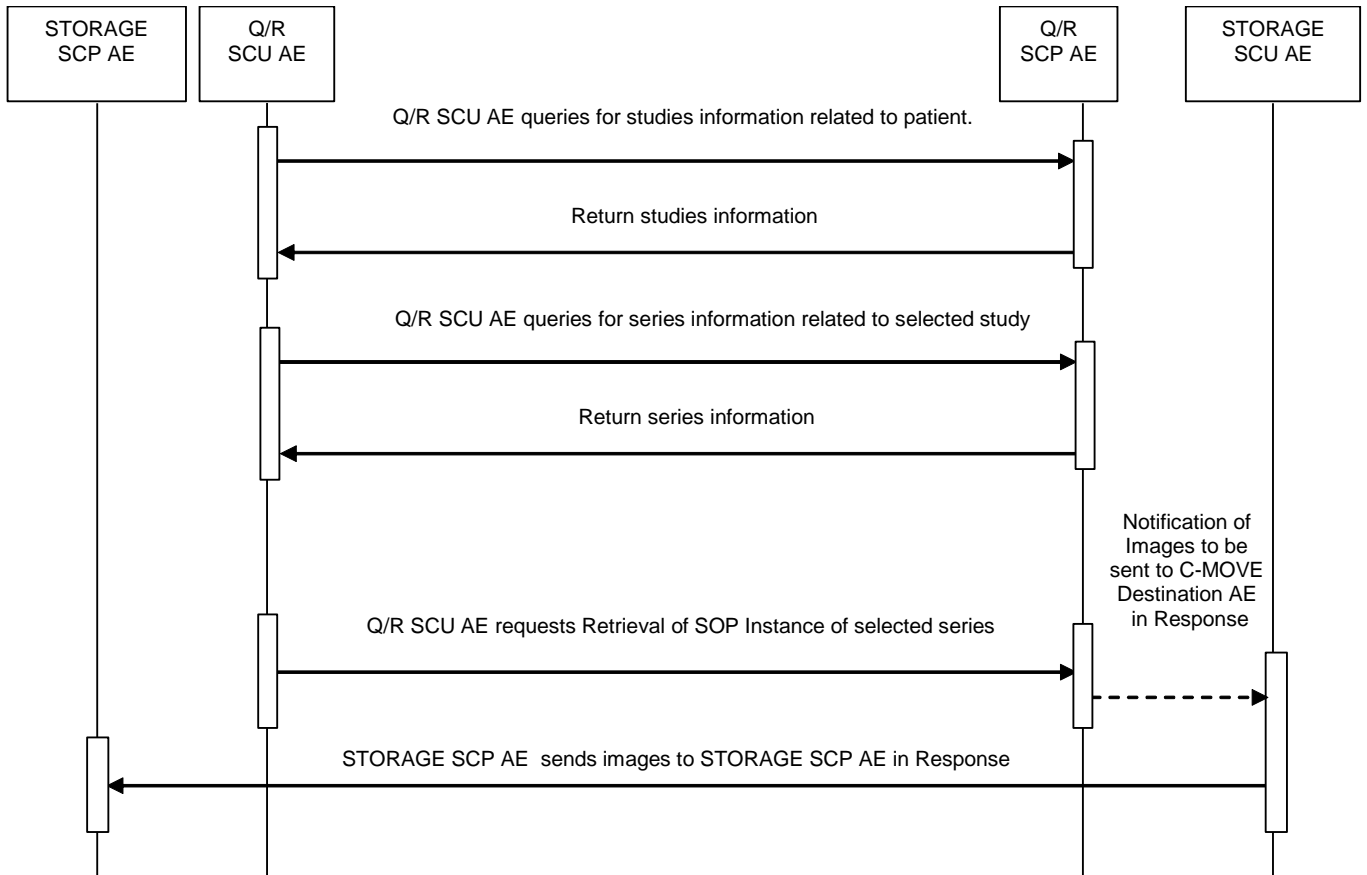


Figure 4.1-4
SEQUENCING CONSTRAINTS – QUERY AND RETRIEVE

Under normal scheduled workflow conditions, the sequencing constraints are illustrated in Figure 4.1-2 , Figure 4.1-3 and Figure 4.1-4

Other workflow situations (e.g. unscheduled procedure steps) will have other sequencing constraints. Printing could equally take place after the images acquired have been stored. Printing could be omitted completely if no printer is connected or hardcopies are not required.

4.2 AE SPECIFICATIONS

4.2.1 Storage Application Entity Specification

4.2.1.1 SOP Classes

RS85 provides Standard Conformance to the following SOP Classes:

Table 4.2-1
SOP CLASSES FOR AE STORAGE

SOP Classes	SOP Class UID	SCU	SCP
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Yes	No
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Yes	No
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33	Yes	No
Storage Commitment Push Model	1.2.840.10008.1.20.1	Yes	No
Verification	1.2.840.10008.1.1	Yes	Yes

4.2.1.2 Association Policies

4.2.1.2.1 General

The DICOM Standard application context name for DICOM 3.0 is always proposed:

Table 4.2-2
DICOM APPLICATION CONTEXT FOR AE STORAGE

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

4.2.1.2.2 Number of Associations

RS85 can initiate one or more Associations at a time for each destination to which a transfer request is being processed in the active job queue list.

Table 4.2-3
NUMBER OF ASSOCIATIONS INITIATED FOR AE STORAGE

Maximum number of simultaneous Associations	Unlimited
---	-----------

RS85 accepts Associations to receive N-EVENT_REPORT notifications for the Storage Commitment Push Model SOP Class.

**Table 4.2-4
NUMBER OF ASSOCIATIONS ACCEPTED FOR AE STORAGE**

Maximum number of simultaneous Associations	Unlimited
---	-----------

4.2.1.2.3 Asynchronous Nature

RS85 does not support asynchronous communications (multiple outstanding transactions over a single Association).

**Table 4.2-5
ASYNCHRONOUS NATURE AS A SCU FOR AE STORAGE**

Maximum number of outstanding asynchronous transactions	1
---	---

4.2.1.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

**Table 4.2-6
DICOM IMPLEMENTATION CLASS AND VERSION FOR AE STORAGE**

Implementation Class UID	1.2.410.200001.1.1185
Implementation Version Name	RS85

4.2.1.3 Association Initiation Policy

4.2.1.3.1 Activity – Send Images and Structured Reports and Requests Commitment

4.2.1.3.1.1 Description and Sequencing of Activities

A user can select exams or images and request them to be sent to some destination. Each request is forwarded to the job queue and processed individually. When the “Send on end exam” or “Send As You Go” option is active, Stored images and reports will be forwarded to the network job queue for a pre-configured auto-send target destination automatically. For “Send on end exam” and “Manual” configuration, the system opens an association, sends all images in the study, and closes the association. If “Send As You Go” is selected, the system handles the association with the Storage SCP Server using the following method.

- a. Open an Association when the first image is acquired, and keep association open until the study is closed.
- b. If an error occurs while sending an SOP Instance to the server because there is no longer an open association (server timed-out), attempt to re-establish the association.

- c. When the study is closed, close the open association after SOP Instances remained in that study are sent.

If the remote AE is configured as an archive device, the Storage AE will, after all images and reports have been sent, transmit Storage Commitment request (N-ACTION) over a separate Association. The Storage AE can only receive an N-EVENT-REPORT request in a subsequent association initiated by the SCP.

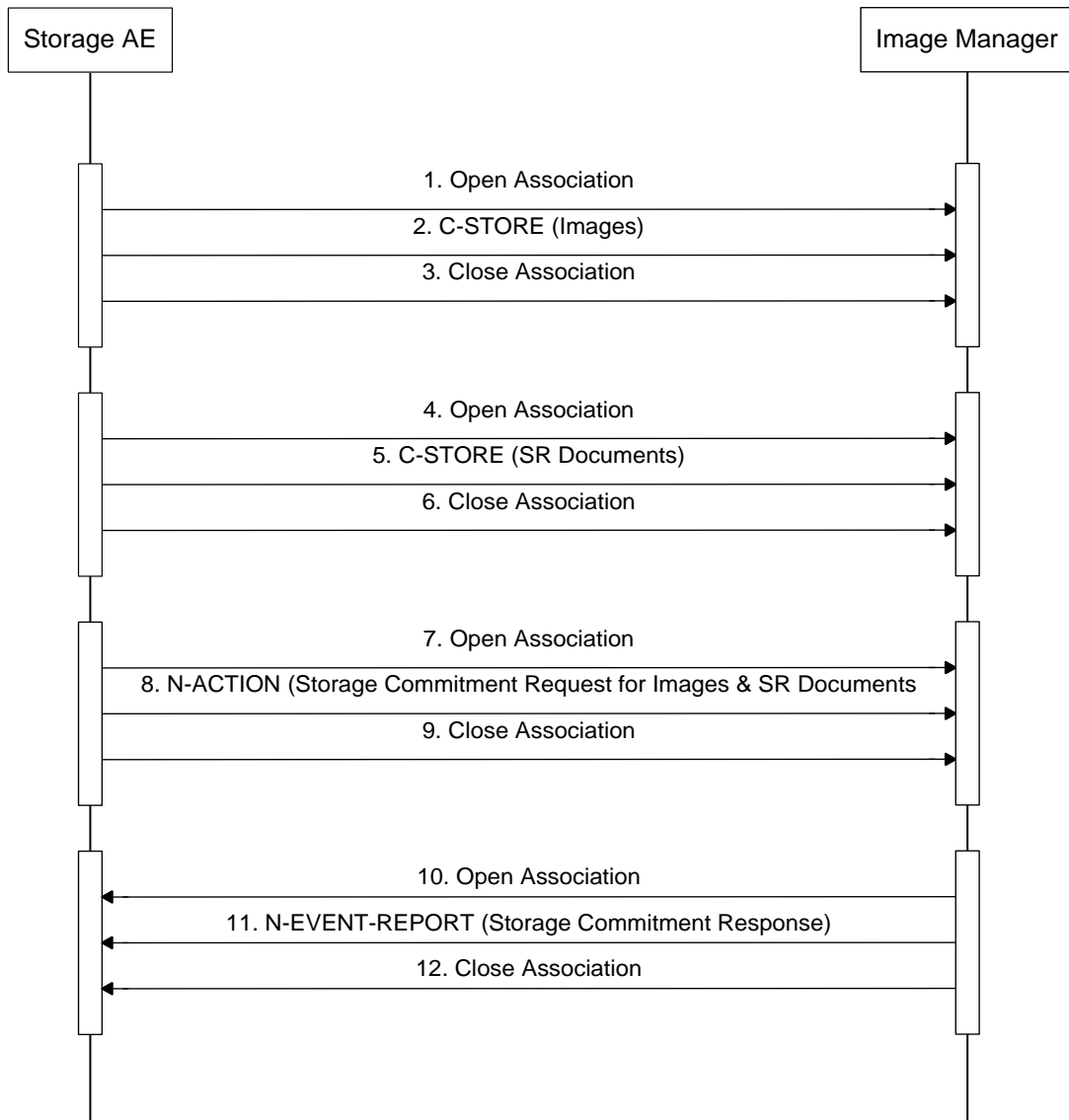


Figure 4.2-1
SEQUENCING OF ACTIVITY - SEND IMAGES AND SR DOCUMENTS

A possible sequence of interactions between the Storage AE and an Image Manager (e.g. a storage or archive

device supporting the Storage and Storage Commitment SOP Classes as an SCP) is illustrated in the figure above.

NOTE: The N-EVENT-REPORT must be sent over a separate association initiated by the Image Manager.
(See Section 4.2.1.4)

4.2.1.3.1.2 Proposed Presentation Contexts

RS85 is capable of proposing the Presentation Contexts shown in the following table.

**Table 4.2-7
PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY SEND IMAGES**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Ultrasound Image Storage	1.2.840.10008.5.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
	.4.1.1.6.1	JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70		
		JPEG Lossy Baseline	1.2.840.10008.1.2.4.50		
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
	.4.1.1.3.1	JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70		
		JPEG Lossy Baseline	1.2.840.10008.1.2.4.50		
Comprehensive Structured Report Storage	1.2.840.10008.5.1 .4.1.1.88.33	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Storage Commitment Push Model	1.2.840.10008.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
	0.1	Explicit VR Little Endian	1.2.840.10008.1.2.1		
Verification	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		

Presentation Contexts for Ultrasound Image Storage and Ultrasound Multi-frame Image Storage will be proposed for the “Storage” device configured in Setup/DICOM.

A Presentation Context for Comprehensive Structured Report Storage will be proposed for the “Storage SR” device configured in Setup/DICOM.

A Presentation Context for Storage Commitment Push Model will be proposed for the “SC” device configured in Setup/DICOM.

A Presentation Context for Verification will be proposed when a user press the “Test” button for a configured device.

4.2.1.3.1.3 SOP Specific Conformance Image & Comprehensive Structured Report Storage SOP Classes

All Image & Structured Report Storage SOP Classes supported by the Storage AE exhibit the same behavior, except where stated, and are described together in this section.

**Table 4.2-8
STORAGE C-STORE RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has successfully stored the SOP Instance. If all SOP Instances succeed, the job is marked as complete.
Refused	Out of Resources	A700-A7FF	The association is aborted using A-ABORT and the send job is marked as failed. The status is logged.
Error	Data Set does not match SOP Class	A900-A9FF	Same as "Refused" above.
Error	Cannot Understand	C000-CFFF	Same as "Refused" above.
Warning	Coercion of Data Elements	B000	Image transmission is considered successful.
Warning	Data Set does not match SOP Class	B007	Same as "Warning" above.
Warning	Elements Discards	B006	Same as "Warning" above.
*	*	Any other status code.	Same as "Refused" above.

The Behavior of Storage AE during communication failure is summarized in the Table below:

**Table 4.2-9
STORAGE COMMUNICATION FAILURE BEHAVIOR**

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the send job is marked as failed.
Association aborted by the SCP or network layers	The Send job is marked as failed.

A failed send job can be restarted by user interaction. The system can be configured to automatically resend failed jobs if a transient status code is received. The delay between resending failed jobs and the number of retries is also

configurable.

4.2.1.3.1.4 SOP Specific Conformance for Storage Commitment SOP Class

4.2.1.3.1.4.1 Storage Commitment Operations (N-ACTION)

The Storage AE will request storage commitment for the configured device for instances of the Ultrasound Image, Ultrasound Multi-frame Image and Structured Report Storage SOP Classes.

The Storage AE will consider Storage Commitment failed if no N-EVENT-REPORT is received for a Transaction UID within a configurable time period after receiving a successful N-ACTION response (duration of applicability for a Transaction UID).

The Storage AE does not send the optional Storage Media FileSet ID & UID Attributes or the Referenced Study Component Sequence Attribute in the N-ACTION

The Behavior of Storage AE when encountering status codes in an N-ACTION response is summarized in the Table below:

**Table 4.2-10
STORAGE COMMITMENT N-ACTION RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The request for storage comment is considered successfully sent. The system waits for the association of the N-Event-Report.
*	*	Any other status code.	The Association is aborted using A-Abort and the request for storage comment is marked as failed

The behavior of Storage AE during communication failure is summarized in the Table below:

**Table 4.2-11
STORAGE COMMITMENT COMMUNICATION FAILURE BEHAVIOR**

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the storage commitment job is marked as failed.
Association aborted by the SCP or network layers	The storage commitment job is marked as failed.

4.2.1.3.1.4.2 Storage Commitment Notification (N-EVENT-REPORT)

The Storage AE is capable of receiving an N-EVENT-REPORT notification if it has successfully negotiated a Presentation Context for the Storage Commitment Push Model.

Upon receipt of an N-EVENT-REPORT the timer associated with the Transaction UID will be cancelled.

The behavior of Storage AE when receiving Event Types within the N-EVENT-REPORT is summarized in the Table below.

**Table 4.2-12
STORAGE COMMITMENT N-EVENT-REPORT BEHAVIOR**

Event Type Name	Event Type ID	Behavior
Storage Commitment Request Successful	1	The commit status is set to "Y" for each exam in the exam list. Auto deletion for committed exam is not supported.
Storage Commitment Request Complete – Failures Exists	2	The commit status is set to "N" for each exam in the exam list. The Referenced SOP Instances under Failed SOP Sequence (0008, 1198) are logged. A send job that failed storage commitment will not be automatically restarted but can be restarted by user interaction.

The reasons for returning specific status codes in an N-EVENT-REPORT response are summarized in the Table below.

**Table 4.2-13
STORAGE COMMITMENT N-EVENT-REPORT RESPONSE STATUS REASONS**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The Storage commitment result has been successfully received.
Failure	Unrecognized Operation	0211H	The Transaction UID in the N_EVENT_REPORT request is not (was never issued within an N_ACTION request)
Failure	No Such Event Type	0113H	An invalid Event Type ID was supplied in the N_EVENT_REPORT request
Failure	Processing Failure	0110H	An internal error occurred during processing of the N_EVENT_REPORT

4.2.1.3.1.5 SOP Specific Conformance for Verification

The Behavior when encountering status codes in a C-ECHO response is summarized in the Table below:

Table 4.2-14
VERIFICATION C-ECHO RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Verification Status is set to 'Normal'
*	*	Any other status code	Verification Status is set to 'Failed'

The Behavior of Storage AE during communication failure is summarized in the Table below:

Table 4.2-15
VERIFICATION COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the verification job is marked as failed.
Association aborted by the SCP or network layers	The verification job is marked as failed.

4.2.1.4 Association Acceptance Policy

4.2.1.4.1 Activity – Receive Storage Commitment Response

4.2.1.4.1.1 Description and Sequence of Activities

The Storage AE will accept associations in order to receive responses to a Storage Commitment Request.

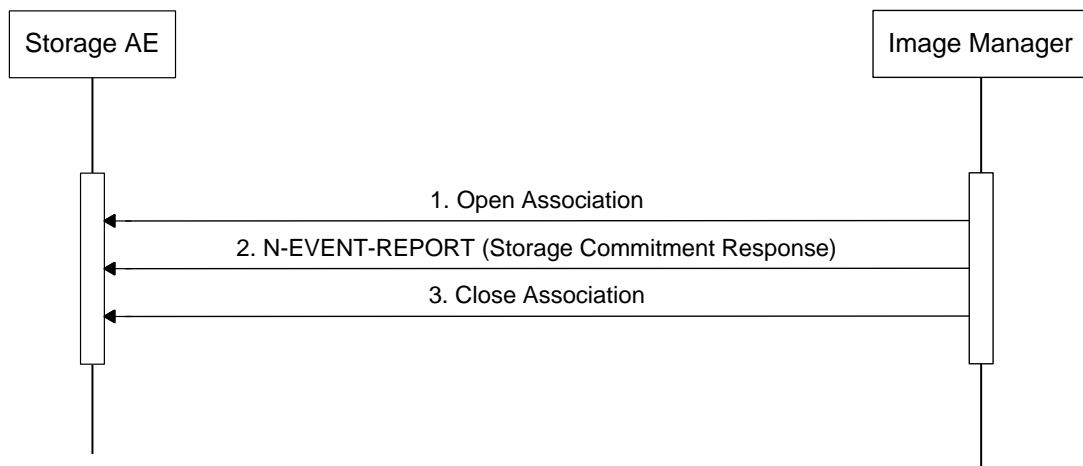


Figure 4.2-2
SEQUENCING OF ACTIVITY - RECEIVE STORAGE COMMITMENT RESPONSE

A possible sequence of interactions between the Storage AE and an Image Manager (e.g. a storage or archive device supporting Storage Commitment SOP Classes as an SCP) is illustrated in the Figure above:

1. The Image Manager opens a new association with the Storage AE.
2. The Image Manager sends an N-EVENT-REPORT request notifying the Storage AE of the status of a previous Storage Commitment Request. The Storage AE replies with an N-EVENT-REPORT response confirming receipt.
3. The Image Manager closes the association with the Storage AE.

4.2.1.4.1.2 Accepted Presentation Contexts

The Storage AE will accept Presentation Contexts as shown in the Table below.

**Table 4.2-16
ACCEPTABLE PRESENTATION CONTEXTS FOR ACTIVITY
RECEIVE STORAGE COMMITMENT RESPONSE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Storage Commitment Push Model	1.2.840.10008.1.	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
	20.1	Explicit VR Little Endian	1.2.840.10008.1.2.1		
Verification	1.2.840.10008.1.	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
	1	Explicit VR Little Endian	1.2.840.10008.1.2.1		

4.2.1.4.1.3 SOP Specific Conformance for Storage Commitment SOP Class

4.2.1.4.1.3.1 Storage Commitment Notifications (N-EVENT-REPORT)

Upon receipt of an N-EVENT-REPORT the timer associated with the Transaction UID will be cancelled.

The behavior of Storage AE when receiving Event Types within the N-EVENT_REPORT is summarized in Table 4.2-12.

The reasons for returning specific status codes in an N-EVENT-REPORT response are summarized in Table 4.2-13.

4.2.1.4.1.4 SOP Specific Conformance for Verification SOP Class

The Storage AE provides standard conformance to the Verification SOP Class as an SCP. If the C-ECHO request was successfully received, a 0000 (Success) status code will be returned in the C-ECHO response.

4.2.2 Workflow Application Entity Specification

4.2.2.1 SOP Classes

RS85 provides Standard Conformance to the following SOP Classes:

Table 4.2-17
SOP CLASSES FOR AE WORKFLOW

SOP Classes	SOP Class UID	SCU	SCP
Modality Worklist Information Model – FIND	1.2.840.10008.5.1.4.31	Yes	No
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Yes	No

4.2.2.2 Association Establishment Policy

4.2.2.2.1 General

The DICOM standard application context name for DICOM 3.0 is always proposed.

Table 4.2-18
DICOM APPLICATION CONTEXT FOR AE WORKFLOW

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

4.2.2.2.2 Number of Associations

RS85 initiates one Association at a time for a Worklist request.

Table 4.2-19
NUMBER OF ASSOCIATIONS INITIATED FOR AE WORKFLOW

Maximum number of simultaneous Associations	1
---	---

4.2.2.2.3 Asynchronous Nature

RS85 does not support asynchronous communications (multiple outstanding transactions over a single Association)

Table 4.2-20
ASYNCHRONOUS NATURE AS A SCU FOR AE WORKFLOW

Maximum number of outstanding asynchronous transactions	1
---	---

4.2.2.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-21

DICOM IMPLEMENTATION CLASS AND VERSION FOR AE WORKFLOW

Implementation Class UID	1.2.410.200001.1.1185
Implementation Version Name	RS85

4.2.2.3 Association Initiation Policy

4.2.2.3.1 Activity – Worklist Update

4.2.2.3.1.1 Description and Sequencing of Activities

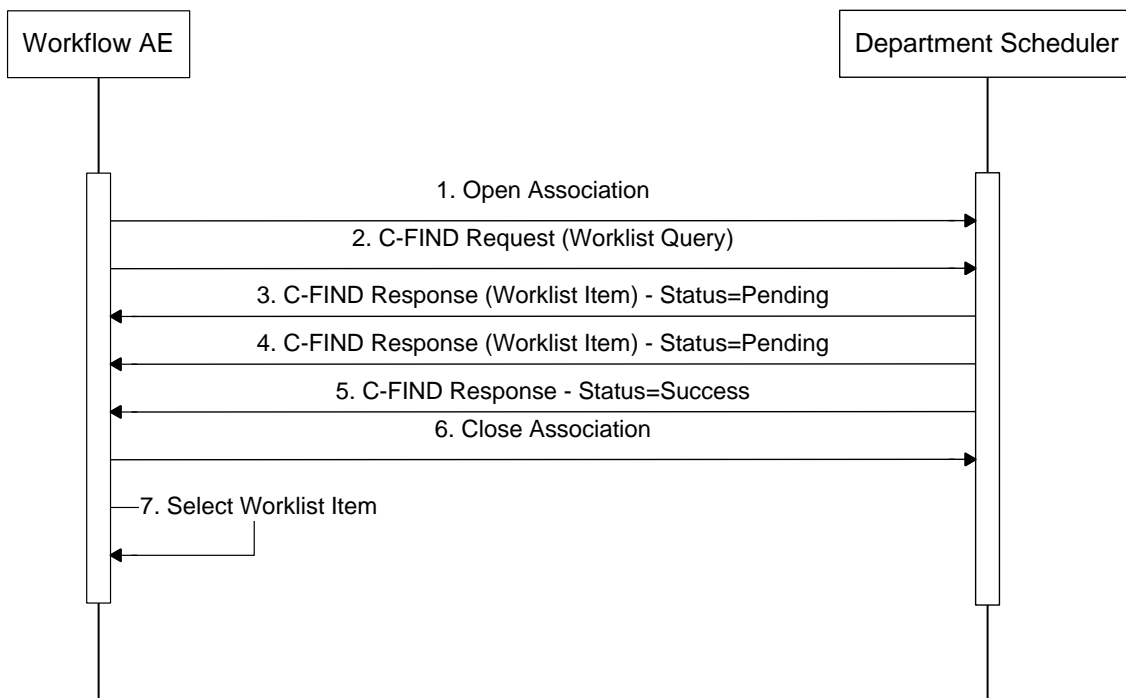
The request for a Worklist Update is initiated by user interaction or automatically at specific time intervals, configurable by the user.

The interactive Worklist Query will display a dialog for entering data as search criteria. When the Query is started on your request, only the data from the dialog will be inserted as matching keys into the query.

With automated worklist queries the RS85 always requests all items for a Scheduled Procedure Step Start Date (actual date), Modality (US) and Scheduled Station AE Title.

Upon initiation of the request, the RS85 will build an Identifier for the C-FIND request, will initiate an Association to send the request and will wait for Worklist responses. After retrieval of all responses, RS85 will access the local database to add patient demographic data. The results will be displayed in a separate list, which will be cleared with the next worklist update.

RS85 will initiate an Association in order to issue a C-FIND request according to the Modality Worklist Information Model.



**Figure 4.2-3
SEQUENCING OF ACTIVITY - WORKLIST UPDATE**

A possible sequence of interactions between the Workflow AE and a Departmental Scheduler (e.g. a device such as a RIS or HIS which supports the Modality Worklist SOP Class as an SCP) is illustrated in the figure above:

4.2.2.3.1.2 Proposed Presentation Contexts

RS85 will propose Presentation Contexts as shown in the following table:

**Table 4.2-22
PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY WORKLIST UPDATE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Modality Worklist Information Model - FIND	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
	5.1.4.31	Explicit VR Little Endian	1.2.840.10008. 1.2.1		

4.2.2.3.1.3 SOP Specific Conformance for Modality Worklist

The behavior of RS85 when encountering status codes in a Modality Worklist C-FIND response is summarized in the table below. If any other SCP response status than “Success” or “Pending” is received by RS85, a message “Query failed” will appear on the user interface.

**Table 4.2-23
MODALITY WORKLIST C-FIND RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Matching is complete	0000	The SCP has Completed the operation successfully.
Pending	Matches are continuing	FF00	Continue.
Pending	Matches are continuing - Warning that one or more Optional Keys were not supported	FF01	Continue.
*	*	Any other status code.	The Association is aborted using A-Abort and the Worklist is marked as failed

The behavior of RS85 during communication failure is summarized in the Table below.

**Table 4.2-24
MODALITY WORKLIST COMMUNICATION FAILURE BEHAVIOR**

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the worklist query is marked as failed.
Association aborted by the SCP or network layers	The Worklist query is marked as failed.

Acquired images will always use the Study Instance UID specified for the Scheduled Procedure Step (if available). If an acquisition is unscheduled, a Study Instance UID will be generated locally.

The Table below provides a description of the RS85 Worklist Request Identifier and specifies the attributes that are copied into the images. Unexpected attributes returned in a C-FIND response are ignored.

Requested return attributes not supported by the SCP are set to have no value. Non-matching responses returned by the SCP due to unsupported optional matching keys are ignored. No attempt is made to filter out possible duplicate entries.

Table 4.2-25
WORKLIST REQUEST IDENTIFIER

Module Name Attribute Name	Tag	VR	M	R	Q	D	IOD
Scheduled Procedure Step							
Scheduled Procedure Step Sequence	0040,0100	SQ		x			
> Scheduled Station AET	0040,0001	AE	(S)	x	x		
> Scheduled Procedure Step Start Date	0040,0002	DA	S,R	x	x	x	
> Scheduled Procedure Step Start Time	0040,0003	TM		x		x	
> Modality	0008,0060	CS	S	x	x		x
> Scheduled Performing Physician's Name	0040,0006	PN		x		x	x
> Scheduled Procedure Step Description	0040,0007	LO		x		x	x
> Scheduled Station Name	0040,0010	SH	S	x	x		
> Scheduled Procedure Step Location	0040,0011	SH	S	x	x		
> Scheduled Protocol Code Sequence	0040,0008	SQ		x			x
> Scheduled Procedure Step ID	0040,0009	SH		x			x
Requested Procedure							
Requested Procedure ID	0040,1001	SH	S	x	x	x	x
Requested Procedure Description	0032,1060	LO		x		x	x
Study Instance UID	0020,000D	UI		x			x
Referenced Study Sequence	0008,1110	SQ		x			x
Requested Procedure Code Sequence	0032,1064	SQ		x			x
Imaging Service Request							
Accession Number	0008,0050	SH	S	x	x	x	x
Requesting Physician	0032,1032	PN		x			
Referring Physician's Name	0008,0090	PN		x		x	x
Visit Status							
Current Patient Location	0038,0300	LO		x			
Patient Identification							
Patient's Name	0010,0010	PN	S	x	x	x	x
Patient ID	0010,0020	LO	S	x	x	x	x
Other Patient IDs (Retired)	0010,1000	LO		x		x	x

Other Patient IDs Sequence (Optional)	0010,1002	SQ		x		x	x
Patient Demographic							
Patient's Birth Date	0010,0030	DA		x		x	x
Patient's Sex	0010,0040	CS		x		x	x
Patient's Size	0010,1020	DS		x		x	x
Patient's Weight	0010,1030	DS		x		x	x
Patient Medical							
Last Menstrual Date	0010,21D0	DA		x		x	x

To retrieve the values used in the obstetrics exams, the user can select a request for values corresponding to the private tags in the table below.

**Table 4.2-26
WORKLIST REQUEST IDENTIFIER (Private Tags)**

Module Name Attribute Name	Tag	VR	M	R	Q	D	IOD
Obstetrics Patient Medical (Private Module)							
Private Creator ("KRETZ_US")	0011,0010	LO		x			
Indication	0011,1001	LO		x			
Estimated Date of Delivery (EDD)	0011,1002	DA		x		x	
Date Of Conception (DOC)	0011,1003	DA		x		x	
Gestational Age (GA)	0011,1004	AS		x		x	
Custom	0011,1005	LO		x			
Exam Comment	0011,1006	LO		x			
Gravida	0011,1007	IS		x		x	
Para	0011,1008	IS		x		x	
Aborte	0011,1009	IS		x		x	
Ectopic Pregnancies	0011,1010	IS		x		x	
Sonographer (Operator Name)	0011,1011	PN		x		x	x
Fetus Number	0011.1012	IS		x		x	

The above tables should read as follows:

- Module Name: The Name of the associated module for supported worklist attributes.
- Attribute Name: Attributes supported to build an RS85 Worklist Request Identifier.
- Tag: DICOM tag for this attribute.
- VR: DICOM VR for this attribute.

- M: Matching keys for (automatic) Worklist Update. An “S” indicates that RS85 supplies an attribute value for Single Value Matching or additional specific tags indicated by “(S)”; an “R” will indicate Range Matching.
- R: Return keys. An “X” will indicate that RS85 will supply this attribute as Return Key with zero length for Universal Matching.
- Q: Interactive Query Key. An “X” will indicate that RS85 will supply this attribute as matching key, if entered in the Setup Dialog.
- D: Displayed keys. An “X” indicates that this worklist attribute is displayed to the user during a patient registration dialog.
- IOD: An “X” indicates that this Worklist attribute is included into all Object Instances created during performance of the related Procedure Step.

4.2.2.3.2 Activity – Acquire Images

4.2.2.3.2.1 Description and Sequencing of Activities

An Association to the configured MPPS SCP system is established immediately after the first SOP Instance is acquired to send the MPPS N-Create message.

The “End Exam” button causes a message box in which a user can select “COMPLETED” or “DISCONTINUED” as a MPPS final state. An exam for which an MPPS instance is sent with a state of “COMPLETED” or “DISCONTINUED” can no longer be updated.

The RS85 will support creation of “unscheduled cases” by allowing MPPS Instances to be communicated for locally registered Patients.

The RS85 supports a 1-to-N relationship between Scheduled and Performed Procedure Steps.

RS85 will initiate an Association to issue an:

- N-CREATE request according to the CREATE Modality Performed Procedure Step SOP Instance operation, or an:
- N-SET request to update the contents and state of the MPPS according to the SET Modality Performed Procedure Step Information operation.

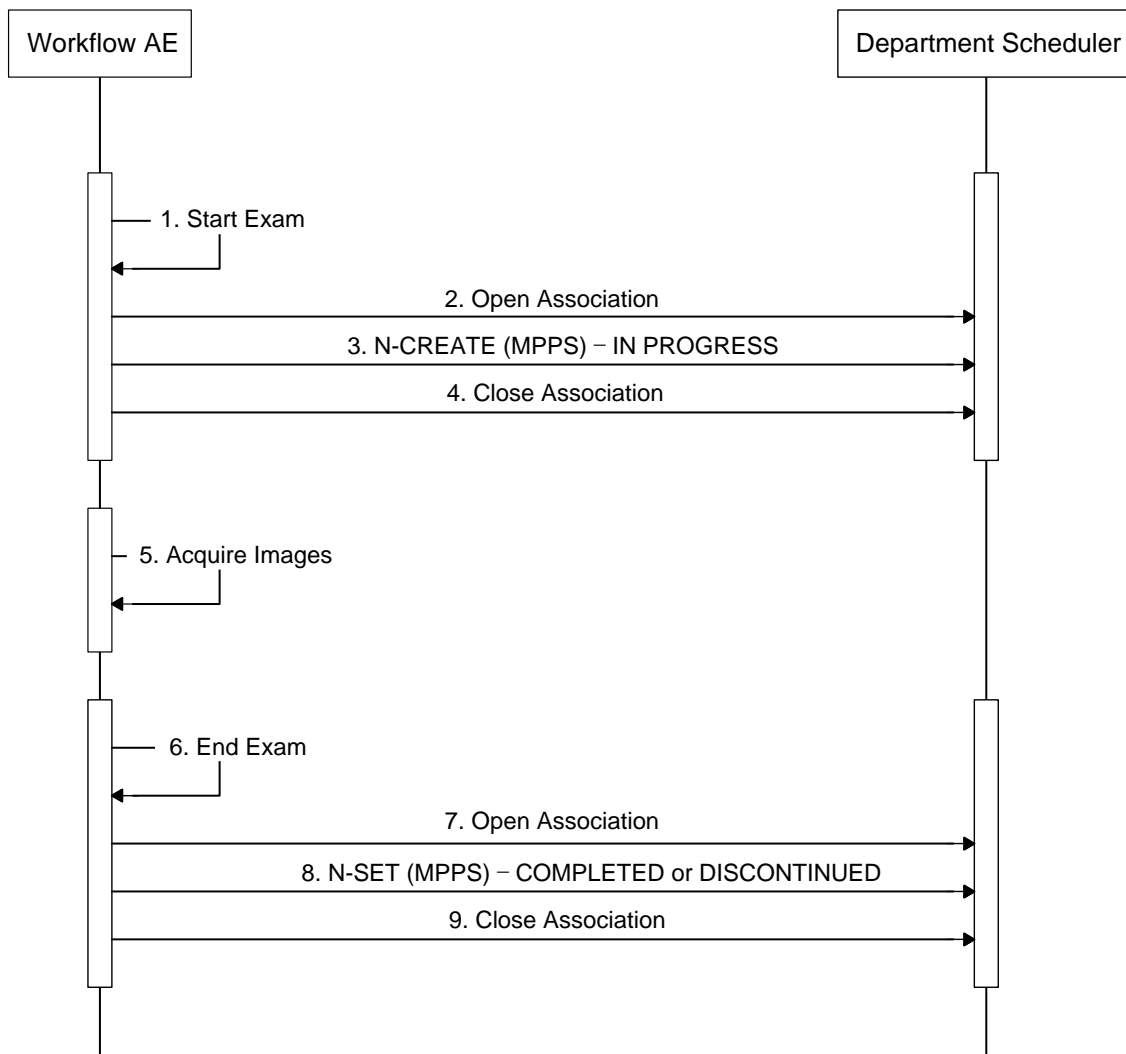


Figure 4.2-4
SEQUENCING OF ACTIVITY - ACQUIRE IMAGES

A possible sequence of interactions between the Workflow AE and a Departmental Scheduler (e.g. a device such as a RIS or HIS which supports the MPPS SOP Class as an SCP) is illustrated in the figure above:

4.2.2.3.2.2 Proposed Presentation Contexts

RS85 will propose Presentation Contexts as shown in the following table:

Table 4.2-27
PROPOSED PRESENTATION CONTEXTS FOR REAL-WORLD ACTIVITY ACQUIRE IMAGES

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Modality Performed	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Procedure Step	3.1.2.3.3	Explicit VR Little Endian	1.2.840.10008. 1.2.1		

4.2.2.3.2.3 SOP Specific Conformance for MPPS

The behavior of the RS85 when encountering status codes in an MPPS N-CREATE or N-SET response is summarized in the table below. If any other SCP response status than “Success” or “Warning” is received by RS85, a message “MPPS failed” will appear on the user interface.

**Table 4.2-28
MPPS N-CREATE / N-SET RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has Completed the operation successfully.
Warning	Attribute Value Out of Range	0116H	The MPPS Operation is considered successful.
*	*	Any other status code.	The Association is aborted using A-Abort and the MPPS is marked as failed

The behavior of RS85 during communication failure is summarized in the table below:

**Table 4.2-29
MPPS COMMUNICATION FAILURE BEHAVIOR**

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the MPPS job is marked as failed.
Association aborted by the SCP or network layers	The study or series query is marked as failed.

Table 4.2-30 provides a description of the MPPS N-CREATE and N-SET request identifiers send by RS85. Empty cells in the N-CREATE and N-SET columns indicate that the attribute is not sent.

**Table 4.2-30
MPPS N-CREATE / N-SET REQUEST IDENTIFIER**

Attribute Name	Tag	VR	N-CREATE	N-SET
Specific Character Set	0008,0005	CS	Ref. Section 6 SUPPORT OF CHARACTER SETS	
Performed Procedure Step Relationship				
Scheduled Step Attribute Sequence	0040,0270	SQ		
> Study Instance UID	0020,000D	UI	From MWL or generated by device	
> Referenced Study Sequence	0008,1110	SQ	From MWL	
>> Referenced SOP Class UID	0008.1150	UI	From MWL	
>> Referenced SOP Instance UID	0008,1155	UI	From MWL	
> Accession Number	0008,0050	SH	From MWL or user input	
> Requested Procedure ID	0040,1001	SH	From MWL	
> Requested Procedure Description	0032,1060	LO	From MWL	
> Scheduled Procedure Step ID	0040,0009	SH	From MWL	
> Scheduled Procedure Step Description	0040,0007	LO	From MWL	
> Scheduled Protocol Code Sequence	0040,0008	SQ	From MWL	
>> Code Value	0008,0100	SH	From MWL	
>> Coding Scheme Designator	0008,0102	SH	From MWL	
>> Coding Scheme Version	0008,0103	SH	From MWL	
>> Code Meaning	0008,0104	LO	From MWL	
Patient's Name	0010,0010	PN	From MWL or user input	
Patient ID	0010,0020	LO	From MWL or user input	
Patient's Birth Date	0010,0030	DA	From MWL or user input	
Patient's Sex	0010,0040	CS	From MWL or user input	

Referenced Patient Sequence	0008,1120	SQ	Zero length	
> Referenced SOP Class UID	0008,1150	UI	Zero length	
> Referenced Instance UID	0008,1155	UI	Zero length	
Performed Procedure Step Information				
Performed Procedure Step ID	0040,0253	SH	Generated by device (Study Date + Study Time)	
Performed Station AE Title	0040,0241	AE	From Modality Setup	
Performed Station Name	0040,0242	SH	From Modality Setup	
Performed Location	0040,0243	SH	Zero length	
Performed Procedure Step Start Date	0040,0244	DA	Actual Start Date	
Performed Procedure Step Start Time	0040,0245	TM	Actual Start Time	
Performed Procedure Step Status	0040,0252	CS	"IN PROGRESS"	"COMPLETED" or "DISCONTINUED"
Performed Procedure Step Description	0040,0254	LO	From MWL or user input (Same as Study Description)	From MWL or user input (Same as Study Description)
Performed Procedure Type Description	0040,0255	LO	Zero length	Zero length
Procedure Code Sequence	0008,1032	SQ	From MWL	From MWL
> Code Value	0008,0100	SH	From MWL	From MWL
> Coding Scheme Designator	0008,0102	SH	From MWL	From MWL
> Coding Scheme Version	0008,0103	SH	From MWL	From MWL
> Code Meaning	0008,0104	LO	From MWL	From MWL
Performed Procedure Step End Date	0040,0250	DA	Zero length	Actual End Date
Performed Procedure Step End Time	0040,0251	TM	Zero length	Actual End Time
Performed Procedure Step Discontinuation Reason Code Sequence	0040,0281	SQ		Used when Performed Procedure Step Status is "DISCONTINUED"
> Code Value	0008,0100	SH		From User Select

> Coding Scheme Designator	0008,0102	SH		From User Select
> Coding Scheme Version	0008,0103	SH		
> Code Meaning	0008,0104	LO		From user select
Image Acquisition Results				
Modality	0008,0060	CS	"US"	
Study ID	0020,0010	SH	Requested Procedure ID or Generated by device (Study Date + Study Time)	
Performed Protocol Code Sequence	0040,0260	SQ	Zero length	
Performed Series Sequence	0040,0340	SQ	Zero length	One or more items
> Performed Physician's Name	0008,1050	PN		From MWL or user input
> Protocol Name	0018,1030	LO		"FreeForm"
> Operator's Name	0008,1070	PN		From user input
> Series Instance UID	0020,000E	UI		Generated by device
> Series Description	0008,103E	LO		Zero length
> Retrieve AE Title	0008,0054	AE		Zero length
> Referenced Image Sequence	0008,1140	SQ		From Modality
>> Referenced SOP Class UID	0008,1150	UI		From Modality
>> Referenced SOP Instance UID	0008,1155	UI		From Modality
> Referenced Non-Image Composite SOP Instance Sequence	0040,0220	SQ		From Modality
>> Referenced SOP Class UID	0008,1150	UI		From Modality
>> Referenced SOP Instance UID	0008,1155	UI		From Modality

4.2.2.4 Association Acceptance Policy

The Workflow Application Entity does not accept Associations.

4.2.3 Hardcopy Application Entity Specification

4.2.3.1 SOP Classes

RS85 provides Standard Conformance to the following SOP Classes:

Table 4.2-31
SOP CLASSES FOR AE HARDCOPY

SOP Classes	SOP Class UID	SCU	SCP
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Yes	No
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	Yes	No

4.2.3.2 Association Policies

4.2.3.2.1 General

The DICOM standard application context name for DICOM 3.0 is always proposed:

Table 4.2-32
DICOM APPLICATION CONTEXT FOR AE HARDCOPY

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

4.2.3.2.2 Number of Association

RS85 can initiate one or more Associations at a time for each destination to which a transfer request is being processed in the active job queue list.

Table 4.2-33
NUMBER OF ASSOCIATIONS INITIATED FOR AE HARDCOPY

Maximum number of simultaneous Associations	Unlimited (number of configured hardcopy devices)
---	---

4.2.3.2.3 Asynchronous Nature

RS85 does not support asynchronous communications (multiple outstanding transactions over a single Association)

Table 4.2-34
ASYNCHRONOUS NATURE AS A SCU FOR AE HARDCOPY

Maximum number of outstanding asynchronous transactions	1
---	---

4.2.3.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-35

DICOM IMPLEMENTATION CLASS AND VERSION FOR AE HARDCOPY

Implementation Class UID	1.2.410.200001.1.1185
Implementation Version Name	RS85

4.2.3.3 Association Initiation Policy

4.2.3.3.1 Activity – Film Images

4.2.3.3.1.1 Description and Sequencing of Activities

A user composes images onto film sheets and requests them to be sent to a specific hardcopy device. The user can select the desired film format and number of copies. Each print-job is forwarded to the job queue and processed individually.

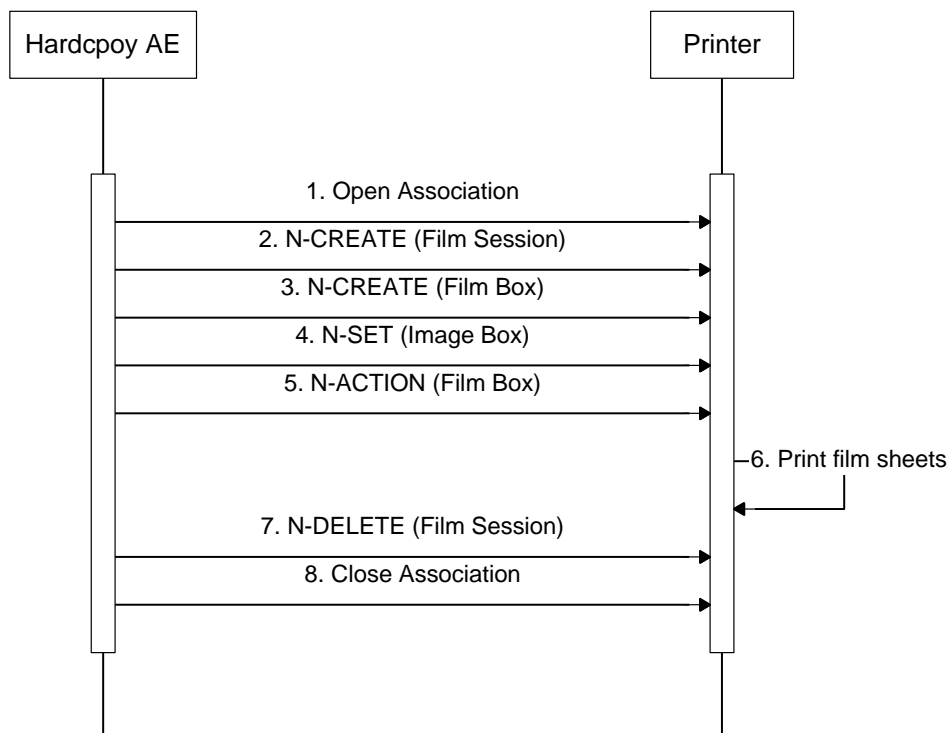


Figure 4.2-5
SEQUENCING OF ACTIVITY - FILM IMAGES

A typical sequence of DIMSE messages sent over an association between Hardcopy AE and a Printer is illustrated in the Figure above:

Association Initiation Policies for “Send on end exam”, “Send As You Go” and “Manual” Mode are equal to the Sending images’ of the Storage Application Entity. (See 4.2.1.3.1.1)

Status of the print-job is reported through the job control interface. One or more job can be active at a time for each separate hardcopy device. If any response from the remote Application contains a status other than Success or Warning, the Association is aborted and the related job is switched to a failed state. It can be restarted any time by user interaction or, if configured, by automated retry.

4.2.3.3.1.2 Proposed Presentation Contexts

RS85 is capable of proposing the Presentation Contexts shown in the Table below:

Table 4.2-36

PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY FILM IMAGES

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Basic Grayscale Print	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Management Meta	5.1.1.9	Explicit VR Little Endian	1.2.840.10008.1.2.1		
Basic Color Print	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Management Meta	5.1.1.18	Explicit VR Little Endian	1.2.840.10008.1.2.1		

4.2.3.3.1.3 Common SOP Specific Conformance for all Print SOP Classes

The general behavior of Hardcopy AE during communication failure is summarized in the table below. This behavior is common for all SOP Classes supported by Hardcopy AE.

Table 4.2-37

HARDCOPY COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the print job is marked as failed.
Association aborted by the SCP or network layers	The print job is marked as failed.

4.2.3.3.1.4 SOP Specific Conformance for the Film Session SOP Class

Hardcopy AE supports the following DIMSE operations for the Film Session SOP Class:

- N-CREATE
- N-DELETE

Details of the supported attributes and status handling behavior are described in the following subsections.

4.2.3.3.1.4.1 Film Session SOP Class Operations (N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the Table below:

Table 4.2-38

FILM SESSION SOP CLASS N-CREATE REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence	Source
----------------	-----	----	-------	----------	--------

				of Value	
Number of Copies	2000,0010	IS	1..99	ALWAYS	USER
Print Priority	2000,0020	CS	HIGH, MED or LOW	ALWAYS	USER
Medium Type	2000,0030	CS	PAPER, CLEAR FILM, BLUE FILM, MAMMO CLEAR FILM or MAMMO BLUE FILM	ALWAYS	USER
Film Destination	2000,0040	CS	MAGAZINE or PROCESSOR	ALWAYS	USER

The Behavior of Hardcopy AE when encountering status codes in an N-CREATE response is summarized in the table below:

Table 4.2-39

FILM SESSION SOP CLASS N-CREATE RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has Completed the operation successfully.
Warning	Attribute Value Out of Range	0116H	System continues operations.
Warning	Attribute List Error	0107H	Same as above
*	*	Any other status code.	The Association is aborted using A-Abort and the print-job is marked as failed

4.2.3.3.1.4.2 Film Session SOP Class Operations (N-DELETE)

The behavior of Hardcopy AE when encountering status codes in an N-DELETE response is summarized in the Table below:

Table 4.2-40

PRINTER SOP CLASS N-DELETE RESONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	

Success	Success	0000	The SCP has Completed the operation successfully.
*	*	Any other status code.	The Association is aborted using A-Abort and the print-job is marked as failed

4.2.3.3.1.5 SOP Specific Conformance for the Film Box SOP Class

Hardcopy AE supports the following DIMSE operations for the Film Box SOP Class:

- N-CREATE
- N-ACTION

Details of the supported attributes and status handling behavior are described in the following subsections.

4.2.3.3.1.5.1 Film Box SOP Class Operations (N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the table below:

**Table 4.2-41
FILM BOX SOP CLASS N-CREATE REQUEST ATTRIBUTES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Display Format	2010,0010	ST	"STANDARD\1, 1" , "STANDARD\1, 2" , "STANDARD\2, 2" , "STANDARD\2, 3" , "STANDARD\3, 3" , "STANDARD\3, 4" , "STANDARD\3, 5" , "STANDARD\4, 4" , "STANDARD\4, 5" or "STANDARD\4, 6"	ALWAYS	USER
Referenced Film Session Sequence	2010.0500	SQ		ALWAYS	AUTO
> Referenced SOP Class UID	0008,1150	UI	1.2.840.10008.5.1.1.1	ALWAYS	AUTO
> Referenced	0008,1155	UI	From created Film Session	ALWAYS	AUTO

SOP Instance UID			SOP Instance		
Film Orientation	2010,0040	CS	PORTRAIT or LANDSCAPE	ALWAYS	USER
Film Size ID	2010,0050	CS	8INX10IN, 8_5INX11IN, 10INX12IN, 10INX14IN, 11INX14IN, 11INX17IN, 14INX14IN, 14INX17IN, 24CMX24CM, 24CMX30CM, A4, A3	ALWAYS	USER
Magnification Type	2010,0060	CS	REPLICATE, BILINEAR, CUBIC, NONE	ALWAYS	USER
Max Density	2010,0130	US	0 ~	ANAP	USER
Configuration Information	2010,0150	ST	Values are defined in Print Conformance Statement	ANAP	USER
Smoothing Type	2010,0080	CS	Values are defined in Print Conformance Statement	ANAP	USER
Border Density	2010,0100	CS	BLACK or WHITE	ALWAYS	USER
Empty Image Density	2010,0110	CS	BLACK or WHITE	ALWAYS	USER
Min Density	2010,0120	US	0 ~	ANAP	USER

The behavior of Hardcopy AE when encountering status codes in an N-CREATE responses is summarized in the table below:

**Table 4.2-42
FILM BOX SOP CLASS N-CREATE RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has Completed the operation successfully.
Warning	Attribute Value Out of Range	0116H	System continues operations.

Warning	Attribute List Error	0107H	Same as above
Warning	Requested Min Density or Max Density outside of printer's operating range	B605H	Same as above
*	*	Any other status code.	The Association is aborted using A-Abort and the print-job is marked as failed

4.2.3.3.1.5.2 Film Box SOP Class Operations (N-ACTION)

An N-ACTION Request is issued to instruct the Print SCP to print the contents of the Film Box.

The behavior of Hardcopy AE when encountering status codes in an N-ACTION responses is summarized in the table below:

Table 4.2-43

FILM BOX CLASS N-ACTION RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has Completed the operation successfully.
*	*	Any other status code.	The Association is aborted using A-Abort and the print-job is marked as failed

4.2.3.3.1.6 SOP Specific Conformance for the Film Box SOP Class

Hardcopy AE supports the following DIMSE operations for the Image Box SOP Class:

- N-SET

Details of the supported attributes and status handling behavior are described in the following subsections.

4.2.3.3.1.6.1 Image Box SOP Class Operations (N-SET)

The attributes supplied in an N-SET Request are listed in the Table below:

Table 4.2-44

BASIC GRAYSCALE IMAGE BOX SOP CLASS N-SET REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Position	2020,0010	US	1 .. N (N = Row * Column of Film Box)	ALWAYS	AUTO
Basic Grayscale Image Sequence	2020,0110	SQ		ALWAYS	AUTO
> Samples Per Pixel	0028,0002	US	1	ALWAYS	AUTO
> Photometric Interpretation	0028,0004	CS	MONOCHROME2	ALWAYS	AUTO
> Rows	0028,0010	US	Number of Row Pixels of Image	ALWAYS	AUTO
> Columns	0028,0011	US	Number of Column Pixels of Image	ALWAYS	AUTO
> Bits Allocated	0028,0100	US	8	ALWAYS	AUTO
> Bits Stored	0028,0101	US	8	ALWAYS	AUTO
> High Bit	0028,0102	US	7	ALWAYS	AUTO
> Pixel Representation	0028,0103	US	0	ALWAYS	AUTO
> Pixel Data	7FE0,0010	OB	Pixels of Image	ALWAYS	AUTO

Table 4.2-45

BASIC COLOR IMAGE BOX SOP CLASS N-SET REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Position	2020,0010	US	1 .. N (N = Row * Column of Film Box)	ALWAYS	AUTO
> Samples Per Pixel	0028,0002	US	3	ALWAYS	AUTO
> Photometric Interpretation	0028,0004	CS	RGB	ALWAYS	AUTO
> Planar Configuration	0028,0006	US	1	ALWAYS	AUTO

> Rows	0028,0010	US	Number of Row Pixels of Image	ALWAYS	AUTO
> Columns	0028,0011	US	Number of Column Pixels of Image	ALWAYS	AUTO
> Bits Allocated	0028,0100	US	8	ALWAYS	AUTO
> Bits Stored	0028,0101	US	8	ALWAYS	AUTO
> High Bit	0028,0102	US	7	ALWAYS	AUTO
> Pixel Representation	0028,0103	US	0	ALWAYS	AUTO
> Pixel Data	7FE0,0010	OB	Pixels of Image	ALWAYS	AUTO

The behavior of Hardcopy AE when encountering status codes in an N-SET response is summarized in the table below:

**Table 4.2-46
IMAGE BOX SOP CLASS N-SET RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has Completed the operation successfully.
*	*	Any other status code.	The Association is aborted using A-Abort and the print-job is marked as failed

4.2.3.4 Association Acceptance Policy

The Hardcopy Application Entity does not accept Associations.

4.2.4 Q/R Application Entity Specification

4.2.4.1 SOP Classes

RS85 provides Standard Conformance to the following SOP Classes:

**Table 4.2-47
SOP CLASSES FOR AE Q/R**

SOP Classes	SOP Class UID	SCU	SCP
Study Root Information Model- FIND	1.2.840.10008.5.1.4.1.2.2.1	Yes	No
Study Root Information Model- MOVE	1.2.840.10008.5.1.4.1.2.2.2	Yes	No

4.2.4.2 Association Establishment Policy

4.2.4.2.1 General

The DICOM standard application context name for DICOM 3.0 is always proposed.

Table 4.2-48
DICOM APPLICATION CONTEXT FOR AE Q/R

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

4.2.4.2.2 Number of Associations

RS85 initiates one Association at a time for a Q/R request.

Table 4.2-49
NUMBER OF ASSOCIATIONS INITIATED FOR AE Q/R

Maximum number of simultaneous Associations	1
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4.2.4.2.3 Asynchronous Nature

RS85 does not support asynchronous communications (multiple outstanding transactions over a single Association)

Table 4.2-50
ASYNCHRONOUS NATURE AS A SCU FOR AE Q/R

Maximum number of outstanding asynchronous transactions	1
---	---

4.2.4.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-51
DICOM IMPLEMENTATION CLASS AND VERSION FOR AE Q/R

Implementation Class UID	1.2.410.200001.1.1185
Implementation Version Name	RS85

4.2.4.3 Association Initiation Policy

4.2.4.3.1 Activity – Query study or series

4.2.4.3.1.1 Description and Sequencing of Activities

The Query attempts to initiate a new association when the user selects Query from the user interface.

When the Query is requested, the data from the user interface will be inserted as matching keys into the query form. When the request is initiated, the RS85 will build an identifier for the C-FIND request, and it will initiate an association to send the request and will wait for Query responses. The results will be displayed in a study or series list.

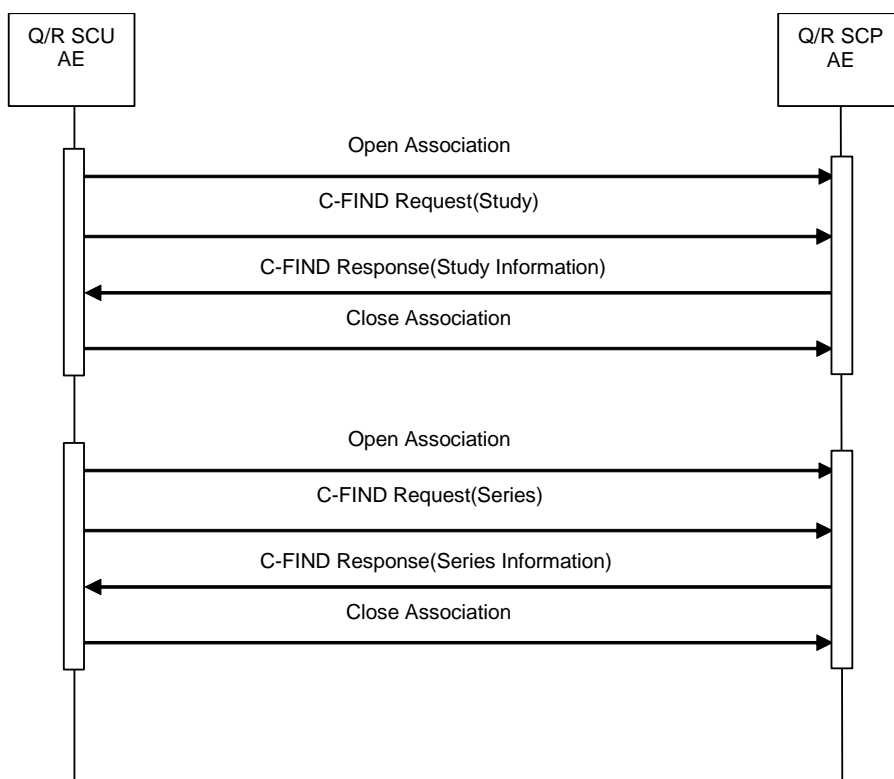


Figure 4.2-6
SEQUENCING OF ACTIVITY - HANDLING QUERY STUDY OR SERIES

4.2.4.3.1.2 Proposed Presentation Contexts

RS85 will propose Presentation Contexts as shown in the following table:

Table 4.2-52
PROPOSED PRESENTATION CONTEXTS
FOR REAL-WORLD ACTIVITY QUERY STUDY OR SERIES

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Study Root	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Information Model-	5.1.4.1.2.2.1	Explicit VR Little Endian	1.2.840.10008. 1.2.1	SCU	None

FIND		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
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4.2.4.3.1.3 SOP Specific Conformance for Query SOP Classes

The behavior of the RS85 when encountering status codes in the Query C-FIND response is summarized in the table below. If any SCP response status other than “Successful” or “Pending” is received by RS85, the message “Query failed” will appear in the user interface.

**Table 4.2-53
QUERY C-FIND RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Successful	Matching is complete	0000	The SCP has completed the operation successfully.
Pending	Matches are continuing	FF00	The query is still ongoing.
Pending	Matches are continuing - Warning that one or more Optional Keys were not supported	FF01	The query is still ongoing.
*	*	Any other status code.	The association is aborted using A-Abort and the Query is marked as failed.

The behavior of the RS85 during communication failure is summarized in the table below:

**Table 4.2-54
QUERY COMMUNICATION FAILURE BEHAVIOR**

Exception	Behavior
Time Out	The association is aborted using A-ABORT and the query is marked as failed.
Association aborted by the SCP or network layers	The study or series query is marked as failed.

The system actually performs a number of C-FIND requests at multiple levels in the DICOM object hierarchy to get the data it requires to display studies or series. Table 4.2-55 provides a description of the query request identifiers.

Table 4.2-55

QUERY REQUEST IDENTIFIER FOR FIND-SCU

Attribute Name	Tag	VR	M	R	Q	D
STUDY Level						
Query/Retrieve Level	0008,0052	CS	S	x	x	
Patient's ID	0010,0020	LO	S	x	x	x
Patient's Name	0010,0010	PN	S	x	x	x
Study Description	0008,1030	LO		x		x
Modalities In Study	0008,0061	CS		x		x
Study Date	0008,0020	DA	S,R	x	x	x
Study Time	0008,0030	TM		x		
Accession Number	0008,0050	SH		x	x	
Study Instance UID	0020,000D	UI		x	x	
Number of Study Related Series	0020,1206	IS		x		x
Number of Study Related Instances	0020,1208	IS		x		
SERIES Level						
Query/Retrieve Level	0008,0052	CS	S	x	x	
Series Number	0020,0011	IS		x		x
Series Description	0008,103E	LO		x		x
Modality	0008,0060	CS		x		x
Series Date	0008,0021	DA		x		x
Series Time	0008,0031	TM		x		
Body Part Examined	0018,0015	CS		x		x
Series Instance UID	0020,000E	UI		x		
Study Instance UID	0020,000D	UI	S		x	
Number of Series Related Instances	0020,1209	IS		x		x

The above table should read as follows:

Attribute Name: Supported attributes that can build an RS85 Query Request Identifier.

Tag: DICOM tag for this attribute.

VR: DICOM VR for this attribute.

M: Matching keys for (automatic) Query. An "S" indicates that the RS85 can supply an attribute value for Single Value Matching or additional specific tags indicated by "(S)"; an "R" indicates Range Matching.

R: Return keys. An "X" indicates that the RS85 will supply this attribute as the Return Key with zero length for Universal Matching.

Q: Interactive Query Key. An "X" indicates that the RS85 will supply this attribute as a matching key,

if entered in the Setup Dialog.

D: Displayed keys. An “X” indicates that this Query attribute is displayed to the user during a patient registration dialog.

4.2.4.3.2 Activity – Retrieve series

4.2.4.3.2.1 Description and Sequencing of Activities

The retrieval function attempts to initiate a new association when the user selects Retrieve in the user interface. A single attempt will be made to retrieve the entity (series) from the selected Q/R AE. If retrieval fails, for whatever reason, no reattempt will be performed.

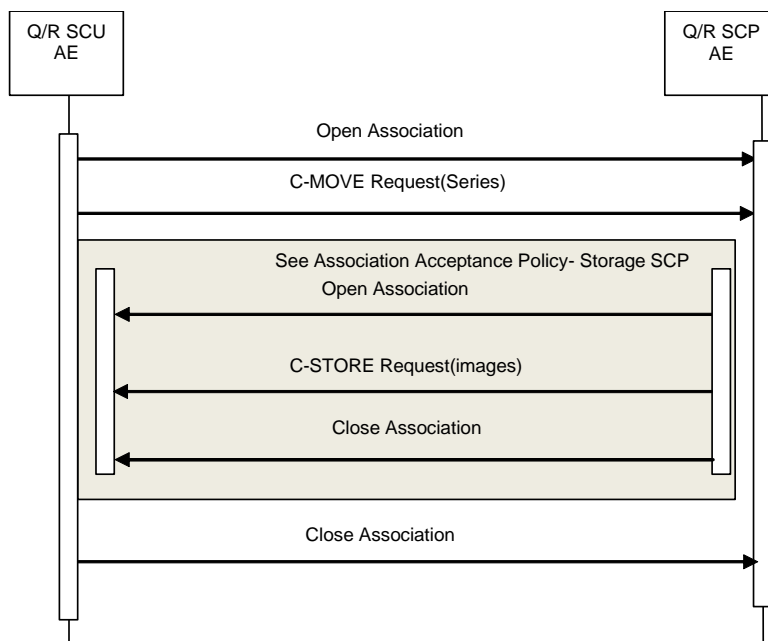


Figure 4.2-7
SEQUENCING OF ACTIVITY – HANDLING RETRIEVE SERIES

4.2.4.3.2.2 Proposed Presentation Contexts

RS85 will propose Presentation Contexts as shown in the following table:

Table 4.2-56
PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY RETRIEVE SERIES

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Study Root	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
Information	5.1.4.1.2.2.2	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None

Model- MOVE		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
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4.2.4.3.2.3 SOP Specific Conformance for Retrieval SOP Classes

The behavior of the RS85 when encountering status codes in Retrieve C-MOVE response is summarized in the table below. If any SCP response status other than “Successful” or “Pending” is received by the RS85, a “failed” message will appear on the user interface.

**Table 4.2-57
RETRIEVE C-MOVE RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Successful	Sub-operations complete – no failures detected	0000	All the Composite SOP Instances have been successfully sent to the C-MOVE Destination AE.
Pending	Sub-operations are still ongoing	FF00	A response with this status code is sent every time a Composite SOP Instance has been successfully sent to the C-MOVE Destination AE.
*	*	Any other status code.	The association is aborted using A-Abort and the retrieval is marked as failed

The behavior of the RS85 during communication failure is summarized in the table below.

**Table 4.2-58
RETRIEVE COMMUNICATION FAILURE BEHAVIOR**

Exception	Behavior
Timeout	The association is aborted using A-ABORT and the retrieval job is marked as failed.
Association aborted by the SCP or network layers	The retrieval is marked as failed.

**Table 4.2-59
RETRIEVE REQUEST IDENTIFIER FOR MOVE-SCU**

Name	Tag	VR	M	R	Q	D
Series Instance UID	0020,000E	UI	S		x	

4.2.4.4 Association Acceptance Policy

The Q/R Application Entity does not accept associations.

4.2.5 STORAGE-SCP Application Entity Specification

4.2.5.1 SOP Classes

The RS85 provides Standard Conformance to the following SOP Classes:

Table 4.2-60
SOP CLASSES FOR AE STORAGE-SCP

SOP Classes	SOP Class UID	SCU	SCP
Verification	1.2.840.10008.1.1	Yes	Yes
US Image Storage	1.2.840.10008.5.1.4.1.1.6.1	No	Yes
US Multi-frame Storage	1.2.840.10008.5.1.4.1.1.3.1	No	Yes
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	No	Yes
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	No	Yes
MG present Image Storage	1.2.840.10008.5.1.4.1.1.1.2	No	Yes
MG Process Image Storage	1.2.840.10008.5.1.4.1.1.1.2.1	No	Yes
DX present Image Storage	1.2.840.10008.5.1.4.1.1.1.1	No	Yes
DX process Image Storage	1.2.840.10008.5.1.4.1.1.1.1.1	No	Yes
Standard PET Image Storage	1.2.840.10008.5.1.4.1.1.128	No	Yes
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	No	Yes

4.2.5.2 Association Establishment Policy

4.2.5.2.1 General

The DICOM standard application context name for DICOM 3.0 is always proposed.

Table 4.2-61
DICOM APPLICATION CONTEXT FOR AE STORAGE-SCP

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

4.2.5.2.2 Number of Associations

The STORAGE-SCP AE can support multiple simultaneous associations requested by AEs. Each time the STORAGE-SCP AE receives an association request, a child process will be spawned to process the storage.

Table 4.2-62

NUMBER OF ASSOCIATIONS INITIATED FOR AE STORAGE-SCP

Maximum number of simultaneous Associations	Unlimited
---	-----------

4.2.5.2.3 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-63

DICOM IMPLEMENTATION CLASS AND VERSION FOR AE STORAGE-SCP

Implementation Class UID	1.2.410.200001.1.1185
Implementation Version Name	RS85

4.2.5.3 Association Initiation Policy

The STORAGE-SCP Application Entity does not initiate associations.

4.2.5.4 Association Acceptance Policy

4.2.5.4.1 Activity – Receive Images

4.2.5.4.1.1 Description and Sequencing of Activities

The STORAGE-SCP AE accepts associations only if they have valid Presentation Contexts. The STORAGE-SCP AE does not have a limit on the number of associations used to send images to it. Images belonging to more than one series can be sent over a single or multiple associations. Images belonging to a single Series can also be sent via different associations.

4.2.5.4.1.2 Proposed Presentation Contexts

The RS85 will propose Presentation Contexts as shown in the following table:

**Table 4.2-64
PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY RECEIVE IMAGES**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
US Image Storage	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
	5.1.4.1.1.6.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
US Multi-frame Storage	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
	5.1.4.1.1.3.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
CT Image Storage	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
	5.1.4.1.1.2	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
MR Image Storage	1.2.840.10008.	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
	5.1.4.1.1.4	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None

		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
MG present Image Storage	1.2.840.10008. 5.1.4.1.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
MG Process Image Storage	1.2.840.10008. 5.1.4.1.1.1.2.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
DX present Image Storage	1.2.840.10008. 5.1.4.1.1.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
DX process Image Storage	1.2.840.10008. 5.1.4.1.1.1.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None

		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
Standard PET Image Storage	1.2.840.10008. 5.1.4.1.1.128	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None
Secondary Capture Image Storage	1.2.840.10008. 5.1.4.1.1.7	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless HIER 14	1.2.840.10008.1.2.4.70	SCP	None
		JPEG Baseline(Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended (Process 2 & 4)	1.2.840.10008.1.2.4.51	SCP	None
		JPEG 2000 Lossless ONLY	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000	1.2.840.10008.1.2.4.91	SCP	None

4.2.5.4.1.3 SOP Specific Conformance for Storage SOP Classes

The behavior response of the RS85 when encountering status codes in C-STORE is summarized in the table below. If any SCP response status other than "Successful" is received by the RS85 it is marked as failed.

**Table 4.2-65
C-STORE RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Successful	Successfully stored the SOP instance.	0000	The SCP has successfully stored the SOP Instance. If all SOP Instances succeed, the job is marked as complete.
*	*	Any other status code.	The association is aborted using A-Abort and the request to receive the image is marked as failed.

4.3 NETWORK INTERFACE

4.3.1 Physical Network Interface

RS85 supports a single network interface. One of the following physical network interfaces will be available depending on hardware options installed:

Table 4.3-1
SUPPORTED PHYSICAL NETWORK INTERFACES

Ethernet 100baseT
Ethernet 10baseT

4.4 CONFIGURATION

4.4.1 AE Title/Presentation Address Mapping

4.4.1.1 Local AE Titles

All local applications use the AE Titles and TCP/IP Ports configured via the Setup/DICOM Menu. All local DICOM services use the same AE Title. The system listens for Verification requests and Commitment reports on the configured Port.

4.4.1.2 Remote AE Title/Presentation Address Mapping

The AE Title, host names and port numbers of remote applications are configured using the RS85 Setup/DICOM Menu.

4.4.1.2.1 Storage

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote Image Storage SCPs. Multiple remote Image Storage SCPs can be defined.

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote Structured Report Storage SCP. Only a single remote Structured Report Storage SCP can be defined.

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote Storage Commitment SCP. Only a single remote Storage Commitment SCP can be defined and only one Image Storage SCP can be assigned for Storage Commitment.

4.4.1.2.2 Workflow

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote Modality Worklist SCP. Multiple remote Modality Worklist SCPs can be defined.

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote MPPS SCP. Only a single remote MPPS SCP can be defined.

4.4.1.2.3 Hardcopy

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote Print SCPs. Multiple remote Print SCPs can be defined.

4.4.1.2.4 Query/Retrieve

The Add button on the RS85 Setup/DICOM Menu must be used to set the AE Titles, port-numbers, IP addresses and capabilities for the remote Query/Retrieve SCP. Multiple remote Query/Retrieve SCPs can be defined.

4.4.2 Parameters

A number of parameters related to acquisition and general operation can be configured using the Setup/DICOM Menu. The Table below only shows those configuration parameters relevant to DICOM communications. See the RS85 Manual for details on general configuration capabilities.

**Table 4.4-1
CONFIGURATION PARAMETERS TABLE**

Parameter	Configurable (Yes/No)	Default Value
Local System Parameters		
AE Title (Local System AE Title)	Yes	"Set AE Title"
Station Name	Yes	"Set Station Name"
Port No. (Local Port Number)	Yes	104
DICOM Send Format Parameters		
2D Mode	Yes	Color

Color Mode	Yes	Color
DICOM Compression Parameters		
Still Image	Yes	Uncompressed
Cine	Yes	JPEG Baseline
DICOM Transfer Mode		
Send on end exam / Send as you go	Yes	"Send on end exam"
Service Common Parameters		
Retry Interval	Yes	30 Sec.
Connect Timeout	Yes	15 Sec.
Maximum Retires	Yes	1
Storage Parameters		
Maintain association	Yes	Checked
Include 3D Volume	Yes	Unchecked
Send Cine Loops	Yes	Checked
Include Pixel Spacing	Yes	Unchecked
Window Center (VOI LUT)	Yes	128
Window Width (VOI LUT)	Yes	256
Storage SR Paramater		
Maintain association	Yes	Checked
Performed Procedure Step Parameters		
Always complete exams	Yes	Checked
Storage Commitment Parameters		
Associated Storage Server	Yes	None
Associated SR Server	Yes	None
Worklist Modality Parameters		
Show Worklist first when the patient screen opens	Yes	Checked
Update Method	Yes	"Only on user Request"
Scheduled Station Name	Yes	"Any"
Study Description Priority	Yes	"Scheduled Procedure Step Description" "Requested Procedure Description"

		“Scheduled Procedure Step, Code Meaning”
Scheduled Station AE Title	Yes	Any
Scheduled Procedure Step Location	Yes	Any
Private Tags	Yes	Unchecked
State Date	Yes	Today
Modality Type	Yes	US
Patient ID	Yes	Blank
Last (Family)	Yes	Blank
Accession #	Yes	Blank
Procedure ID	Yes	Blank
Other Patient IDs Sequence (0010, 1002)	Yes	Unchecked
Print Parameters		
Transfer Mode	Yes	“Send on end exam”
Color	Yes	“Grayscale”
Medium Type	Yes	“PAPER”
Format	Yes	1x1
Film Size	Yes	8 IN X 10 IN
Orientation	Yes	“PORTRAIT”
Destination	Yes	“MAGAZINE”
Magnification	Yes	“REPLICATE”
Smoothing Type	Yes	Blank
Border Density	Yes	“BLACK”
Empty Density	Yes	“BLACK”
Priority	Yes	“HIGH”
Min Density	Yes	Blank
Max Density	Yes	Blank
Copies	Yes	1
Configuration Info	Yes	Blank
Others		
Store SR at End of Exam	Yes	Checked
Max Frame Rate	Yes	30
Insert Other Patient IDs Sequence (0010, 1002) In Storage IOD (Information Object Definition)	Yes	Unchecked

5 MEDIA INTERCHANGE

5.1 IMPLEMENTATION MODEL

5.1.1 Application Data Flow

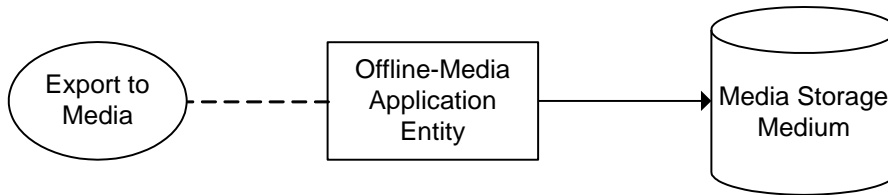


Figure 5.1-1
APPLICATION DATA FLOW DIAGRAM FOR MEDIA STORAGE

- The Offline-Media Application Entity exports images and Structured Report to a Media Storage medium. It is associated with the local real-world activity “Export to Media”, “Export to Media” is performed upon user request for selected studies.

5.1.2 Functional Definition of AEs

5.1.2.1 Functional Definition of Offline-Media Application Entity

Activation of the “Export to Media” menu entry will pass the currently selected studies to the Offline-Media Application Entity. The SOP Instances associated with the selection will be collected into one or more export jobs. The contents of each export job will be written to a single media.

5.1.3 Sequencing of Real-World Activities

At least one study must exist and be selected before the Offline-Media Application Entity can be invoked. The operator can insert a new media at any time before or after invocation of the Offline-Media Application Entity. If no media is available the export job can be cancelled immediately.

5.1.4 File Meta Information Options

The implementation written to the File Meta Header in each file is:

Table 5.1-1

DICOM IMPLEMENTATION CLASS AND VERSION FOR MEDIA STORAGE

Implementation Class UID	1.2.410.200001.1.1185
Implementation Version Name	RS85

5.2 AE SPECIFICATIONS

5.2.1 Offline-Media Application Entity Specification

The Offline-Media Application Entity provides standard conformance to the Media Storage Service Class. The Application Profiles and roles are listed below:

Table 5.2-1

APPLICATION PROFILES, ACTIVITIES AND ROLES FOR OFFLINE-MEDIA

Application Profiles Supported	Real World Activity	Role
STD-US-SC-MF-CDR	Export To Media	FSC, FSU, FSR
STD-US-SC-MF-DVD	Export To Media	FSC, FSU, FSR

5.2.1.1 File Meta Information for the Application Entity

The File-Set Identifier included in the File Meta Header is "MED_FSU".

5.2.1.2 Real-World Activities

5.2.1.2.1 Activity – Export to Media

The Offline-Media Application Entity acts as an FSC and FSU when requested to export SOP Instances from the local database to a media.

If the contents of the current selection do not fit on a single media, a separation into multiple export jobs which can be adapted by the user will be suggested.

The user will be prompted to insert a media for each export job. The contents of the export job will be written together with a corresponding DICOMDIR to a media. Writing in multi-session mode is supported.

5.2.1.2.1.1 Media Storage Application Profiles

The Offline-Media Application Entity supports the STD-US-SC-MF-CDR and STD-US-SC-MF-DVD Application Profile.

5.2.1.2.1.1.1 Options

The Media Application Entity supports the SOP Classes and Transfer Syntaxes listed in the table below:

**Table 5.2-2
IODS, SOP CLASSES AND TRANSFER SYNTAXES FOR OFFLINE MEDIA**

Information Object Definition	SOP Class UID	Transfer Syntax	Transfer Syntax UID
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1
US Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian JPEG Lossless HIER 14 JPEG Lossy Baseline	1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50
US Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian JPEG Lossless HIER 14 JPEG Lossy Baseline	1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33	Explicit VR Little Endian	1.2.840.10008.1.2.1

6 SUPPORT OF CHARACTER SETS

All RS85 DICOM applications support the

ISO_IR 100 : Latin Alphabet No. 1

Supplementary set of ISO 8859

ISO 646

ISO_IR 144 : Cyrillic

Supplementary set of ISO 8859

ISO 646

ISO 2022 IR 149 : Korean

KS X 1001 Hangle and Hanja

ISO 646

ISO 2000 IR 13\ISO 2022 IR 87 : Japanese

JIS X 0201 Katakana

JIS X 0201 Romaji

JIS X 0208 Kanji

JIS X 0212 Supplementary Kanji Set

GB18030 : Chinese

ISO_IR 192 : Unicode in UTF-8

7 SECURITY

7.1 GENERAL

It is assumed that RS85 is used within a secured environment. It is assumed that a secured environment includes as minimum:

- a. Firewall or router protections to ensure that only approved external hosts have network access to RS85.
- b. Firewall or router protections to ensure that RS85 has only network access to approved external hosts and services.
- c. Any communication with external hosts and services outside the locally secured environment use appropriately secure network channels (e.g. such as a Virtual Private Network (VPN)).

Other network security procedures such as automated intrusion detection may be appropriate in some environments. Additional security features may be established by the local security policy and are beyond the scope of this conformance statement.

7.2 SECURE TRANSPORT CONNECTION PROFILES

This system supports the Basic TLS Secure Transport Connection Profile and AES TLS Secure Transport Connection Profile. It also supports the TLS 1.2 Protocol and additional Cipher Suites for enhanced interoperability and security.

Table 7.2-1
SUPPORTED PROFILE AND CIPHER SUITES

Supported TLS Feature	Mechanism
Entity Authentication	RSA based certificates
Exchange of Master Secrets	RSA
Data Integrity	SHA
Privacy (Cipher Suites)	TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA (secp256r1) TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (secp256r1)

	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (secp256r1)
	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (secp256r1)
	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (secp256r1)
	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (secp256r1)
	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (secp256r1)
	TLS_RSA_WITH_3DES_EDE_CBC_SHA (rsa 2048)
	TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048)
	TLS_RSA_WITH_AES_128_CBC_SHA256 (rsa 2048)
	TLS_RSA_WITH_AES_128_GCM_SHA256 (rsa 2048)
	TLS_RSA_WITH_AES_256_CBC_SHA (rsa 2048)
	TLS_RSA_WITH_AES_256_CBC_SHA256 (rsa 2048)
	TLS_RSA_WITH_AES_256_GCM_SHA384 (rsa 2048)

Certificates can be imported to the Trusted Certificate Authority for verifying incoming certificates.

The certificate for this system can be imported via media or created within the device.

In case of importing, a private key is required along with the certificate. if the private key has a passphrase, It must be entered as well.

In case of creating in the device, Self-signed certificate is generated and can be downloaded to media.

The following types of certificates are supported for import.

Base 64 Text : PEM format (.pem, .crt)

ASN.1 Binary : BER, DER, CER formats (.der, .cer, .crt)

Product "RS85" uses an embedded FIPS 140-2-validated cryptographic module (Certificate #1747) running on a "Windows 10" platform per FIPS 140-2 Implementation Guidance section G.5 guidelines.

8 ANNEXES

8.1 IOD CONTENTS

8.1.1 Created SOP Instances

Table 8.1-1 specifies the attributes of an Ultrasound Image transmitted by the RS85 storage applications.

8.1-3 specifies the attributes of a Comprehensive Structured Reports transmitted by the RS85 storage applications.

The following tables use a number of abbreviations. The abbreviations used in the “Presence of...” column are:

- VNAP Value Not Always Present (attribute sends zero length if no value is present)
- ANAP Attribute Not Always Present
- ALWAYS Always Present
- EMPTY Attribute is sent without a value

The abbreviations used in the “Source” column:

- MWL the attribute value source Modality Worklist
- USER the attribute value source is from User input
- AUTO the attribute value is generated automatically
- MPPS the attribute value is the same as the Modality Performed Procedure Step service
- CONFIG the attribute value source is a configurable parameter

NOTE: All dates and times are encoded in the local configured calendar and time. Date, Time and Time zones are configured using the Setup Menu.

8.1.1.1 US or US Multiframe Image IOD

**Table 8.1-1
IOD OF CREATED US OR US MULTIFRAME SOP INSTANCES**

IE	Module	Reference	Presence of Module
Patient	Patient	Table 8.1-4	ALWAYS
Study	General Study	Table 8.1-5	ALWAYS
	Patient Study	Table 8.1-6	ALWAYS

Series	General Series	Table 8.1-7	ALWAYS
Equipment	General Equipment	Table 8.1-8	ALWAYS
Image	General Image	Table 8.1-9	ALWAYS
	Image Pixel	Table 8.1-10	ALWAYS
	Cine	Table 8.1-11	Only if US Multiframe
	Multi-Frame	Table 8.1-12	Only if US Multiframe
	US Region Calibration	Table 8.1-13	ANAP
	US Image	Table 8.1-14	ALWAYS
	VOI LUT	Table 8.1-15	ALWAYS
	SOP Common	Table 8.1-17	ALWAYS

8.1.1.1.1 Additional Module

**Table 8.1-2
ADDITIONAL MODULES**

Module	Reference	Presence of Module
Image Plane	Table 8.1-16	ANAP

8.1.1.2 Comprehensive Structured Report IOD

**Table 8.1-3
IOD OF CREATED COMPREHENSIVE STRUCTURED REPORT SOP INSTANCES**

IE	Module	Reference	Presence of Module
Patient	Patient	Table 8.1-4	ALWAYS
Study	General Study	Table 8.1-5	ALWAYS
	Patient Study	Table 8.1-6	ALWAYS
Series	SR Document Series	Table 8.1-18	ALWAYS
Equipment	General Equipment	Table 8.1-8	ALWAYS
Document	SR Document General	Table 8.1-19	ALWAYS
	SR Document Content	Table 8.1-20	ALWAYS
	SOP Common	Table 8.1-21	ALWAYS

8.1.1.3 Common Modules

**Table 8.1-4
PATIENT MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Patient's Name	0010,0010	PN	From MWL or User Input. Values supplied via Modality Worklist will be entered as received. Values supplied via user input will contain first 3 components (Last^First^Middle). Maximum 64 characters.	VNAP	MWL/USER
Patient ID	0010,0020	LO	From MWL, user input or generated by device. Maximum 64 characters.	ALWAYS	MWL/USER/AUTO
Patient's Birth Date	0010,0030	DA	From MWL or user input	VNAP	MWL/USER
Patient's Sex	0010,0040	CS	From MWL or user input	VNAP	MWL/USER
Other Patient IDs (Retired)	0010,1000	LO	From MWL or user input	ANAP	MWL/USER
Other Patient IDs Sequence (Optional)	0010,1002	SQ	From MWL or user input	ANAP	MWL/USER
> Patient ID	0010,0020	LO	From MWL or user input	ANAP	MWL/USER
> Type of Patient ID	0010,0022	CS	From MWL or "TEXT"	ANAP	MWL/AUTO

**Table 8.1-5
GENERAL STUDY MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Study Instance UID	0020,000D	UI	From MWL or generated by device	ALWAYS	MWL/AUTO

Study Date	0008,0020	DA	<yyyymmdd>	ALWAYS	AUTO
Study Time	0008,0030	TM	<hhmmss>	ALWAYS	AUTO
Referring Physician's Name	0008,0090	PN	From MWL or user input	VNAP	MWL/USER
Study ID	0020,0010	SH	From Requested Procedure UID or System generate : Study Date + Study Time <yyyymmddhhmmss>	ALWAYS	AUTO
Accession Number	0008,0050	SH	From MWL or user input	VNAP	MWL/USER
Study Description	0008,1030	LO	From MWL (Scheduled procedure step description, Requested procedure description or Code Meaning of Scheduled procedure step) or user input	ANAP	MWL/USER
Referenced Study Sequence	0008,1110	SQ	From MWL	ANAP	MWL
> Referenced SOP Class UID	0008,1150	UI	From MWL	ANAP	MWL
> Referenced SOP Instance UID	0008,1155	UI	From MWL	ANAP	MWL
Procedure Code Sequence	0008,1032	SQ	From MWL	ANAP	MWL

**Table 8.1-6
PATIENT STUDY MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Patient's Size	0010,1020	DS	From MWL or user input	ANAP	MWL/USER
Patient's Weight	0010,1030	DS	From MWL or user input	ANAP	MWL/USER

**Table 8.1-7
GENERAL SERIES MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Modality	0008,0060	CS	US	ALWAYS	AUTO
Series Instance UID	0020,000E	UI	Generated by device	ALWAYS	AUTO
Series Number	0020,0011	IS	Generated by device, increments from "1" in each study	ALWAYS	AUTO
Series Date	0008,0021	DA	<yyyymmdd>	ALWAYS	AUTO
Series Time	0008,0031	TM	<hhmmss>	ALWAYS	AUTO
Performing Physician's Name	0008,1050	PN	From MWL or user input	ANAP	MWL/USER
Operators' Name	0008,1070	PN	From user input	ANAP	USER
Referenced Performed Procedure Step Sequence	0008,1111	SQ	Identifies the MPPS SOP Instance to which this image is related	ALWAYS	MPPS
> Referenced SOP Class UID	0008,1150	UI	MPPS SOP Class UID "1.2.840.10008.3.1.2.3.3"	ALWAYS	MPPS
> Referenced SOP Instance UID	0008,1155	UI	MPPS SOP Instance UID	ALWAYS	MPPS
Request Attributes Sequence	0040,0275	SQ	Zero or 1 item will be present	ANAP	AUTO
> Requested Procedure ID	0040,1001	SH	From MWL	ANAP	MWL
> Scheduled Procedure Step ID	0040,0009	SH	From MWL	ANAP	MWL

> Scheduled Procedure Step Description	0040,0007	LO	From MWL	ANAP	MWL
> Scheduled Protocol Code Sequence	0040.0008	SQ	From MWL	ANAP	MWL
Performed Procedure Step ID	0040,0253	SH	Same as MPPS	ALWAYS	MPPS
Performed Procedure Step Start Date	0040,0244	DA	Same as Study Date	ALWAYS	AUTO
Performed Procedure Step Start Time	0040,0245	TM	Same as Study Time	ALWAYS	AUTO
Performed Procedure Step Description	0040,0254	LO	Same as Study Description	ANAP	MWL/US ER

**Table 8.1-8
GENERAL EQUIPMENT MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Manufacturer	0008,0070	LO	"SAMSUNG MEDISON CO., LTD."	ALWAYS	AUTO
Institution Name	0008,0080	LO	From user input	ANAP	CONFIG
Station Name	0008,1010	SH	From user input	ANAP	CONFIG
Manufacturer's Model Name	0008,1090	LO	"RS85"	ALWAYS	AUTO
Device Serial Number	0018,1000	LO	Generated by device	ALWAYS	AUTO
Software Versions	0018,1020	LO	Generated by device	ALWAYS	AUTO

8.1.1.4 US or US Multiframe Image Module

Table 8.1-9

GENERAL IMAGE MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Instance Number	0020,0013	IS	Generated by device, increments from "1" in each series	ALWAYS	AUTO
Patient Orientation	0020,0020	CS	NULL		
Content Date	0008,0023	DA	<yyyymmdd>	ALWAYS	AUTO
Content Time	0008,0033	TM	<hhmmss>	ALWAYS	AUTO
Image Type	0008,0008	CS	"ORIGINAL" and "PRIMARY"	ALWAYS	AUTO
Acquisition Date	0008,0022	DA	<yyyymmdd>	ALWAYS	AUTO
Acquisition Time	0008,0032	TM	<hhmmss>	ALWAYS	AUTO
Acquisition DateTime	0008,002A	DT	<yyyymmddhhmmss>	ALWAYS	AUTO
Lossy Image Compression	0028,2110	CS	US = "00" (uncompressed) or "01" (lossy compressed) US-MF = "01" (lossy compressed)	ALWAYS	AUTO
Lossy Image Compression Ratio	0028,2112	DS	Used if (0028, 2110) = "01", Calculated by device	ANAP	AUTO
Lossy Image Compression Method	0028,2114	CS	"ISO_10918_1", used if (0028,2110) = "01"	ANAP	AUTO

Table 8.1-10

IMAGE PIXEL MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Samples per Pixel	0028,0002	US	"3" for RGB or YBR_FULL_422 "1" for MONOCHROME2	ALWAYS	AUTO
Photometric Interpretation	0028,0004	CS	Uncompressed = "RGB" or "MONOCHROME2" Compressed = "YBR_FULL_422"	ALWAYS	AUTO

Rows	0028,0010	US	US : 1280 x 872 US-MF : 640 x 480	ALWAYS	AUTO
Columns	0028,0011	US	1024 x 768 1280 x 720 (Columns x Rows)	ALWAYS	AUTO
Bits Allocated	0028,0100	US	"8"	ALWAYS	AUTO
Bits Stored	0028,0101	US	"8"	ALWAYS	AUTO
High Bit	0028,0102	US	"7"	ALWAYS	AUTO
Pixel Representation	0028,0103	US	"0"	ALWAYS	AUTO
Pixel Data	7FE0,0010	OW or OB	Generated by device	ALWAYS	AUTO
Planar Configuration	0028,0006	US	"0"	ALWAYS	AUTO
Private Creator	7FE1,0010	LO	"MEDISON_US"	ANAP	AUTO
3D Volume	7FE1,1002	OB	3D Volume Data	ANAP	AUTO
Private Creator	7FE3,0010	LO	"S-DETECT"	ANAP	AUTO
Image Mode	7FE3,1011	LO	"2D_STILL" or "S-DETECT"	ANAP	AUTO
Real StartX	7FE3,1022	IS	Left position of region	ANAP	AUTO
Real StartY	7FE3,1023	IS	Top position of region	ANAP	AUTO
Real Width	7FE3,1024	IS	Width of region	ANAP	AUTO
Real Height	7FE3,1025	IS	Height of region	ANAP	AUTO
Preset Name	7FE3,1026	LO	"BREAST" or "BREAST1"	ANAP	AUTO
Probe Position Angle	7FE3,1032	DS	Generated by device	ANAP	AUTO
Probe Position Distance	7FE3,1033	DS	Generated by device	ANAP	AUTO
Probe Angle	7FE3,1034	DS	Generated by device	ANAP	AUTO
Breast Position	7FE3,1035	LO	"L" or "R"	ANAP	AUTO
Private Creator	7FE5,0010	LO	"IOTA-ADNEX"	ANAP	AUTO
Patient Age	7FE5,1011	IS	Age of patient	ANAP	AUTO
Serum CA-125	7FE5,1012	LO	Value from Blood test. (Required if image mode is "IOTA-ADNEX")	ANAP	AUTO

Oncology Center	7FE5,1021	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Maximal Diameter of the Lesion	7FE5,1022	IS	Unit : mm (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Maximal Diameter of the Largest Solid Part	7FE5,1023	IS	Unit : mm (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
No Solid Parts	7FE5,1024	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Same as Maximal Diameter of the Lesion	7FE5,1025	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
More than 10 Locules	7FE5,1026	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Number of Papillations	7FE5,1027	IS	“0”, “1”, “2”, “3” or “4” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Acoustic Shadows	7FE5,1028	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Ascites	7FE5,1029	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Not Measured	7FE5,1030	LO	“Y” or “N” (Required if image mode is “IOTA-ADNEX”)	ANAP	AUTO
Private Creator	8FF1,0060	LO	“Samsung Contrast Quantification”	ANAP	AUTO
Private Creator	8FF1,6001	LO	“1.0”	ANAP	AUTO

Data Version					
Log-Compression Dynamic Range	8FF1,6030	DS	Generated by device	ANAP	AUTO
Total Gain	8FF1,6031	DS	Generated by device	ANAP	AUTO
Anti-Log Law Vector	8FF1,6032	DS	Generated by device	ANAP	AUTO
TGC Contrast Gain Vector	8FF1,6034	DS	Generated by device	ANAP	AUTO
Palette Name	8FF1,6035	LO	Generated by device	ANAP	AUTO
Contrast Red Palette Data	8FF1,6036	IS	Generated by device	ANAP	AUTO
Contrast Green Palette Data	8FF1,6037	IS	Generated by device	ANAP	AUTO
Contrast Blue Palette Data	8FF1,6038	IS	Generated by device	ANAP	AUTO
Transducer Name	8FF1,6040	LO	"CA1-7A" or "LA3-12A"	ANAP	AUTO
Transducer frequency	8FF1,6041	DS	Generated by device	ANAP	AUTO
Vector of Destruction Frame Number	8FF1,6050	DS	Generated by device	ANAP	AUTO
Number of Destruction Frames	8FF1,6051	DS	Generated by device	ANAP	AUTO
Nonlinear Contrast Mode	8FF1,6052	CS	"CEUS"	ANAP	AUTO
Allow Quantification	8FF1,6053	LO	"True" or "False"	ANAP	AUTO

**Table 8.1-11
CINE MODULE OF CREATED US MULTIFRAME SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
----------------	-----	----	-------	-------------------	--------

Frame Time	0018,1063	DS	Milliseconds	ANAP	AUTO
Cine Rate	0018,0040	IS	Frames per second	ANAP	AUTO

Table 8.1-12

MULTI-FRAME MODULE OF CREATED US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Number of Frames	0028,0008	IS	Numbers of Frames	ANAP	AUTO
Frame Increment Pointer	0028,0009	AT	"1577059" : (0018, 1063)	ANAP	AUTO

Table 8.1-13

US REGION CALIBRATION MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Sequence of Ultrasound Regions	0018,6011	SQ	Generated by device. A sequence is present for each region in the system display.	ANAP	AUTO
> Region Location Min x0	0018,6018	UL	Left position of region	ALWAYS	AUTO
> Region Location Min y0	0018,601A	UL	Top position of region	ALWAYS	AUTO
> Region Location Max x1	0018,601C	UL	Right position of region	ALWAYS	AUTO
> Region Location Max y1	0018,601E	UL	Bottom position of region	ALWAYS	AUTO
> Physical Units X Direction	0018,6024	US	2D Image : 0003H = cm M-Mode : 0004H = seconds Doppler : 0004H = seconds	ALWAYS	AUTO

> Physical Units Y Direction	0018,6026	US	2D Image : 0003H = cm M-Mode : 0003H = cm Doppler : 0005H = hertz or 0007H = cm/sec	ALWAYS	AUTO
> Physical Delta X	0018,602C	FD	The physical value per pixel increment	ALWAYS	AUTO
> Physical Delta Y	0018,602E	FD	The physical value per pixel increment	ALWAYS	AUTO
> Region Spatial Format	0018,6012	US	2D Tissue : 0001H M-Mode Tissue or flow : 0002H Spectral (CW or PW Doppler) : 0003H	ALWAYS	AUTO
> Region Data Type	0018,6014	US	Tissue : 0001H Color Flow : 0002H PW Spectral Doppler : 0003H CW Spectral Doppler : 0004H	ALWAYS	AUTO
> Region Flags	0018,6016	UL	See DICOM PS 3.3 C.8.5.5.1.3	ALWAYS	AUTO

Table 8.1-14

US IMAGE MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Samples Per Pixel	0028,0002	US	"3" for RGB or YBR_FULL_422 "1" for MONOCHROME2	ALWAYS	AUTO
Photometric Interpretation	0028,0004	CS	Uncompressed = "RGB" or "MONOCHROME2" Compressed = "YBR_FULL_422"	ALWAYS	AUTO
Bits Allocated	0028,0100	US	"8"	ALWAYS	AUTO
Bits Stored	0028,0101	US	"8"	ALWAYS	AUTO
High Bit	0028,0102	US	"7"	ALWAYS	AUTO
Planar Configuration	0028,0006	US	"0"	ALWAYS	AUTO

Pixel Representation	0028,0103	US	"0"	ALWAYS	AUTO
Image Type	0008,0008	CS	"ORIGINAL" and "PRIMARY"	ALWAYS	AUTO
Lossy Image Compression	0028,2110	CS	US = "00" (uncompressed) or "01" (lossy compressed) US-MF = "01" (lossy compressed)	ALWAYS	AUTO

Table 8.1-15

VOI LUT MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Window Center	0028,1050	DS	default : "128"	ALWAYS	CONFIG
Window Width	0028,1051	DS	default : "256"	ALWAYS	CONFIG

Table 8.1-16

IMAGE PLANE MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Pixel Spacing	0028,0030	DS	<p>In case that All following conditions are satisfied, This attribute is inserted.</p> <ol style="list-style-type: none"> 1. User shall select the option activating Pixel Spacing at the DICOM Setup. 2. Image shall have regions consisting of only tissue and color 3. For all regions, Units for X and Y direction shall be "cm" 4. For all regions, Delta X of US Region calibration module shall have the same value. 5. For all regions, Delta Y of US Region calibration module shall have the same value. 	ANAP	AUTO

Table 8.1-17**SOP COMMON MODULE OF CREATED US OR US MULTIFRAME SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
SOP Class UID	0008,0016	UI	US = "1.2.840.10008.5.1.4.1.1.6.1" US-MF = "1.2.840.10008.5.1.4.1.1.3.1"	ALWAYS	AUTO
SOP Instance UID	0008,0018	UI	Generated by device	ALWAYS	AUTO
Specific Character Set	0008,0005	CS	Ref. Section 6 SUPPORT OF CHARACTER SETS	ALWAYS	AUTO

8.1.1.5 Comprehensive Structured Report Modules**Table 8.1-18****SR DOCUMENT SERIES MODULE OF CREATED COMPREHENSIVE SR SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Modality	0008,0060	CS	SR	ALWAYS	AUTO
Series Instance UID	0020,000E	UI	Generated by device	ALWAYS	AUTO
Series Number	0020,0011	IS	"2"	ALWAYS	AUTO
Referenced Performed Procedure Step Sequence	0008,1111	SQ	Identifies the MPPS SOP Instance to which this image is related	ALWAYS	MPPS
> Referenced SOP Class UID	0008,1150	UI	MPPS SOP Class UID "1.2.840.10008.3.1.2.3.3"	ALWAYS	MPPS
> Referenced SOP Instance UID	0008,1155	UI	MPPS SOP Instance UID	ALWAYS	MPPS

Table 8.1-19**SR DOCUMENT GENERAL MODULE OF CREATED COMPREHENSIVE SR SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Instance Number	0020,0013	IS	Generated by device, increments from "1" in each series	ALWAYS	AUTO
Completion Flag	0040,A491	CS	"PARTIAL"	ALWAYS	AUTO
Verification Flag	0040,A493	CS	"UNVERIFIED"	ALWAYS	AUTO
Content Date	0008,0023	DA	<yyyymmdd>	ALWAYS	AUTO
Content Time	0008,0033	TM	<hhmmss>	ALWAYS	AUTO
Referenced Request Sequence	0040,A370	SQ	1 item will be present	ALWAYS	AUTO
> Study Instance UID	0020,000D	UI	From MWL or generated by device	ALWAYS	MWL/AUTO
> Referenced Study Sequence	0008,1110	SQ	From MWL	ANAP	MWL
>> Referenced SOP Class UID	0008,1150	UI	From MWL	ANAP	MWL
>> Referenced SOP Instance UID	0008,1155	UI	From MWL	ANAP	MWL
> Accession Number	0008,0050	SH	From MWL or user input	VNAP	MWL/USER
> Placer Order Number/Imaging Service Request	0040,2016	LO	NULL	VNAP	AUTO
> Filler Order Number/Imaging Service Request	0040,2017	LO	NULL	VNAP	AUTO
> Requested Procedure ID	0040,1001	SH	From MWL	VNAP	MWL
> Requested Procedure Description	0032,1060	LO	From MWL	VNAP	MWL

> Requested Procedure Code Sequence	0032,1064	SQ	From MWL	VNAP	MWL
Performed Procedure Code Sequence	0040,A372	SQ	NULL	VNAP	AUTO

Table 8.1-20

SR DOCUMENT CONTENT MODULE OF CREATED COMPREHENSIVE SR SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Value Type	0040,A040	CS	"CONTAINER"	ALWAYS	AUTO
Concept Name Code Sequence	0040,A043	SQ	1 item will be present	ALWAYS	AUTO
> Include 'Code Sequence Macro'			EV(125000, DCM, "OB-GYN Ultrasound Procedure Report") for OB-GYN EV(125100, DCM, "Vascular Ultrasound Procedure Report") for Vascular EV(125200, DCM, "Adult Echocardiography Procedure Report") for Adult Echocardiography EV (99400, MDSN, "Urology Ultrasound Report") for Urology EV (99500, MDSN, "SmallParts Ultrasound Report") for Small Parts EV (111400, DCM, "Breast Imaging Report") for Breast	ALWAYS	AUTO

			<p>EV (99700, MDSN, "Soft Tissue Neck and Head Imaging Report") for Thyroid</p> <p>EV (125196, DCM, "Fetal Cardiac Ultrasound Report") for Fetal Echo</p> <p>EV (99800, MDSN, "Pediatric Ultrasound Report") for Pediatric</p> <p>EV (99900, MDSN, "Musculoskeletal Ultrasound Report") for MSK</p>		
Continuity of Content	0040,A050		"SEPARATE"	ALWAYS	AUTO
Content Template Sequence	0040,A504		1 item will be present	ALWAYS	AUTO
> Mapping Resource	0008,0105		<p>"DCMR" for OB-GYN, Vascular, Adult Echocardiography, Breast and Fetal Heart</p> <p>"MDSN" for Urology, Small Parts, Thyroid and Pediatric</p>	ALWAYS	AUTO
> Template Identifier	0040,DB00		<p>"5000" for OB-GYN</p> <p>"5100" for Vascular</p> <p>"5200" for Adult Echocardiography</p> <p>"99400" for Urology</p> <p>"99500" for Small Parts</p>	ALWAYS	AUTO

			"4200" for Breast "99700" for Thyroid "5220" for Fetal Heart "99800" for Pediatric		
Content Sequence	0040,A730	SQ	One or more items may be included in this sequence	ALWAYS	AUTO
> Relationship Type	0040,A010	CS	Ref. Section 9 STRUCTURED REPORT TEMPLATES	ALWAYS	AUTO
> Include Document Relationship Macro			Ref. Section 9 STRUCTURED REPORT TEMPLATES	ALWAYS	AUTO
> Include Document Content Macro			Ref. Section 9 STRUCTURED REPORT TEMPLATES	ALWAYS	AUTO

Table 8.1-21

SOP COMMON MODULE OF CREATED COMPREHENSIVE SR SOP INSTANCES

Attribute Name	Tag	VR	Value	Presence of Value	Source
SOP Class UID	0008,0016	UI	"1.2.840.10008.5.1.4.1.1.88.33"	ALWAYS	AUTO
SOP Instance UID	0008,0018	UI	Generated by device	ALWAYS	AUTO
Specific Character Set	0008,0005	CS	Ref. Section 6 SUPPORT OF CHARACTER SETS	ALWAYS	AUTO

8.1.2 Used Fields in received IOD by application

The RS85 storage application does not receive SOP Instances. The usage of attributes received via Modality Worklist is described in section 4.2.2.3.1.3.

8.1.3 Attribute mapping

The relationships between attributes received via Modality Worklist, stored in acquired images and communicated via MPPS are summarized in the Table below. The format and conversions used in Table are the same as the corresponding table in IHE Technical Framework, Rev. 7.0 May 15, 2006, vol. II, Appendix A.

Table 8.1-22
ATTRIBUTE MAPPING BETWEEN MODALITY WORKLIST, IMAGE AND MPPS

Modality Worklist	Image IOD	MPPS IOD
Patient's Name	Patient's Name	Patient's Name
Patient ID	Patient ID	Patient ID
Other Patient IDs (Retired)	Other Patient IDs (Retired)	_____
Other Patient IDs Sequence (Optional)	Other Patient IDs Sequence (Optional)	_____
Patient's Birth Date	Patient's Birth Date	Patient's Birth Date
Patient's Sex	Patient's Sex	Patient's Sex
Patient's Size	Patient's Size	_____
Patient's Weight	Patient's Weight	_____
Referring Physician's Name	Referring Physician's Name	_____
	_____	Scheduled Step Attributes Sequence
Study Instance UID	Study Instance UID	> Study Instance UID
Referenced Study Sequence	Referenced Study Sequence	> Referenced Study Sequence
Accession Number	Accession Number	> Accession Number
	Request Attributes Sequence	_____
Requested Procedure ID	> Requested Procedure ID	> Requested Procedure ID
Requested Procedure Description	> Requested Procedure Description	> Requested Procedure Description
Scheduled Procedure Step ID	> Scheduled Procedure Step ID	> Scheduled Procedure Step ID
Scheduled Procedure Step Description	> Scheduled Procedure Step Description	> Scheduled Procedure Step Description
Scheduled Protocol Code Sequence	> Scheduled Protocol Code Sequence	> Scheduled Protocol Code Sequence
Requested Procedure ID	Study ID	Study ID
_____	Performed Procedure Step ID	Performed Procedure Step ID
_____	Performed Procedure Step Start Date	Performed Procedure Step Start Date

_____	Performed Procedure Step Start Time	Performed Procedure Step Start Time
_____	Performed Procedure Step Description	Performed Procedure Step Description
_____	_____	Performed Series Sequence
Requested Procedure Code Sequence	Procedure Code Sequence	Procedure Code Sequence
_____	Referenced Performed Procedure Step Sequence	_____
_____	> Referenced SOP Class UID	SOP Class UID
_____	> Referenced SOP Instance UID	SOP Instance UID
Scheduled Performing Physician's Name	Performing Physicians Name	Performing Physicians Name

8.1.4 Coerced/Modified Fields

The Modality Worklist AE will truncate attribute values received in the response to a Modality Worklist Query if the value length is longer than the maximum length permitted by the attribute's VR.

8.2 DATA DICTIONARY OF PRIVATE ATTRIBUTES

The Private Attributes added to create SOP Instances are listed in the Table below. RS85 reserves blocks of private attributes in groups 7FE1, 7FE5, 7FE3 and 8FF1. Further details on usage of these private attributes are contained in Section 8.1

Table 8.2-1

DATA DICTIONARY OF PRIVATE ATTRIBUTES IN GROUP 7FE1 (3D Volume)

Tag	Attribute Name	VR	VM
(7FE1, 0010)	Private Creator	LO	1
(7FE1, 1002)	3D Volume	OB	1

Table 8.2-2

DATA DICTIONARY OF PRIVATE ATTRIBUTES IN GROUP 7FE3 (S-Detect)

Tag	Attribute Name	VR	VM
-----	----------------	----	----

(7FE3, 0010)	Private Creator	LO	1
(7FE3, 1011)	Image Mode	LO	1
(7FE3, 1022)	Real StartX	IS	1
(7FE3, 1023)	Real StartY	IS	1
(7FE3, 1024)	Real Width	IS	1
(7FE3, 1025)	Real Height	IS	1
(7FE3, 1026)	Preset Name	LO	1
(7FE3, 1032)	Probe Position Angle	DS	1
(7FE3, 1033)	Probe Position Distance	DS	1
(7FE3, 1034)	Probe Angle	DS	1
(7FE3, 1035)	Breast Position	LO	1

Table 8.2-3

DATA DICTIONARY OF PRIVATE ATTRIBUTES IN GROUP 7FE5 (IOTA-ADNEX)

Tag	Attribute Name	VR	VM
(7FE5, 0010)	Private Creator	LO	1
(7FE5, 1011)	Patient Age	IS	1
(7FE5, 1012)	Serum CA-125	LO	1
(7FE5, 1021)	Oncology Center	LO	1
(7FE5, 1022)	Maximal Diameter of the Lesion	IS	1
(7FE5, 1023)	Maximal Diameter of the Largest Solid Part	IS	1
(7FE5, 1024)	No Solid Parts	LO	1
(7FE5, 1025)	Same as Maximal Diameter of the Lesion	LO	1
(7FE5, 1026)	More than 10 Locules	LO	1
(7FE5, 1027)	Number of Papillations	IS	1
(7FE5, 1028)	Acoustic Shadows	LO	1
(7FE5, 1029)	Ascites	LO	1
(7FE5, 1030)	Not Measured	LO	1

Table 8.2-4

DATA DICTIONARY OF PRIVATE ATTRIBUTES IN GROUP 8FF1 (Vuebox)

Tag	Attribute Name	VR	VM
(8FF1, 0060)	Private Creator	LO	1
(8FF1, 6001)	Private Creator Data Version	LO	1
(8FF1, 6030)	Log-Compression Dynamic Range	DS	1
(8FF1, 6031)	Total Gain	DS	1
(8FF1, 6032)	Anti-Log Law Vector	DS	256
(8FF1, 6034)	TGC Contrast Gain Vector	DS	256
(8FF1, 6035)	Palette Name	LO	1
(8FF1, 6036)	Contrast Red Palette Data	IS	256
(8FF1, 6037)	Contrast Green Palette Data	IS	256
(8FF1, 6038)	Contrast Blue Palette Data	IS	256
(8FF1, 6040)	Transducer Name	LO	1
(8FF1, 6041)	Transducer frequency	DS	1
(8FF1, 6050)	Vector of Destruction Frame Number	DS	N
(8FF1, 6051)	Number of Destruction Frames	DS	1
(8FF1, 6052)	Nonlinear Contrast Mode	CS	1
(8FF1, 6053)	Allow Quantification	LO	1

8.3 CODED TERMINOLOGY AND TEMPLATES

The Workflow AE is capable of supporting arbitrary coding schemes for Procedure and Protocol Codes. The contents of Requested Procedure Code Sequence (0032, 1064) and Scheduled Protocol Code Sequence (0040, 0008) supplied in Worklist Items will be mapped to Image IOD and MPPS attributes as described in Section 8.1.3

8.4 STANDARD EXTENDED / SPECIALIZED / PRIVATE SOP CLASSES

No Specialized or Private SOP Classes are supported.

8.4.1 US OR US MULTIFRAME IMAGE STORAGE SOP CLASS

The US or US Multiframe Image Storage SOP Classes are extended to create a Standard Extended SOP Class by addition of standard and private attributes to the created SOP Instances as documented in section 8.1

3D Volume Data is transferred to the configured Storage Server, if "Send 3D Volume" option is enabled in the Setup Dialog.

8.5 PRIVATE TRANSFER SYNTAXES

No Private Transfer Syntaxes are supported.

9 STRUCTURED REPORT TEMPLATES

This Section uses the following forms for describing Structured Report Templates used in RS85.

	Rel with Parent	VT	Concept Name	Presence of Value	Comments
1					
2					

	NL	REL	VT	Concept Name	Unit / CODE Value	Ref TID	Ref CID	Comments or Label
A-1								
A-2								

- Rel with Parent Relationship
- VT Value Type
- Concept Name Any constraints on Concept Name are specified in this field as defined or enumerated coded entries, or as baseline or defined context groups.
- Presence of Value Ref. Section 8.1.1
- Comments Description about Reference section or used values.
- Label Name which is indicated in the system
- NL The nesting level of Content Items is denoted by ">" symbols
- REL Relationship
- Unit/Code, Value Applied unit, enumerated coded entries, or the reference of Context Group.
- Ref TID Referenced Template ID Number
- Ref CID Referenced Context ID Number. The left side of "/" shows a CID value applied in "Concept Name" column and the right side shows a CID value applied in "Unit/Code, Value" column. (e.g. 228/12012)

9.1 OB-GYN STRUCTURED REPORT TEMPLATE

9.1.1 OB-GYN Ultrasound Report Templates(TID 5000)

**Table 9.1-1
OB-GYN ULTRASOUND PROCEDURE REPORT TEMPLATE**

	Rel with Parent	VT	Concept Name	Presence of Value	Comments
1		CONTAINER	EV (125000, DCM, "OB-GYN Ultrasound Procedure Report")	ALWAYS	
2	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants		
3	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context	ANAP	Ref. Section 9.1.1.1
4	CONTAINS	INCLUDE	DTID (5001) Patient Characteristics	ANAP	Ref. Section 9.1.1.2
5	CONTAINS	CONTAINER	DT (111028, DCM, "Image Library")		
6	CONTAINS	IMAGE	No Purpose of reference		
7	CONTAINS	INCLUDE	DTID (5002) OB-GYN Procedure Summary Section	ANAP	Ref. Section 9.1.1.3
8	CONTAINS	INCLUDE	DTID (5004) Fetal Biometry Ratio Section	ANAP	Ref. Section 9.1.1.4
9	CONTAINS	INCLUDE	DTID (5005) Fetal Biometry Section	ANAP	Ref. Section 9.1.1.5
10	CONTAINS	INCLUDE	DTID (5006) Long Bones Section	ANAP	Ref. Section 9.1.1.6
11	CONTAINS	INCLUDE	DTID (5007) Fetal Cranium Section	ANAP	Ref. Section 9.1.1.7
12	CONTAINS	INCLUDE	DTID (5009) Fetal Biophysical Profile Section	ANAP	Ref. Section 9.1.1.8
13	CONTAINS	INCLUDE	DTID (5011) Early Gestation Section	ANAP	Ref. Section 9.1.1.9
14	CONTAINS	INCLUDE	DTID (5010) Amniotic Sac Section	ANAP	Ref. Section 9.1.1.10
15	CONTAINS	INCLUDE	DTID (5015) Pelvis and Uterus Section	ANAP	Ref. Section 9.1.1.11
16	CONTAINS	INCLUDE	DTID (5012) Ovaries Section	ANAP	Ref. Section 9.1.1.12
17	CONTAINS	INCLUDE	DTID (5013) Follicles Section	ANAP	Ref. Section 9.1.1.13
18	CONTAINS	INCLUDE	DTID (5013) Follicles Section	ANAP	Ref. Section 9.1.1.14
19	CONTAINS	INCLUDE	DTID (SM99003) Cyst Section	ANAP	Ref. Section 9.1.1.15
20	CONTAINS	INCLUDE	DTID (SM99004) Fibroid Section	ANAP	Ref. Section 9.1.1.16
21	CONTAINS	INCLUDE	DTID (5025) OB-GYN Fetal Vascular Measurement Group	ANAP	Ref. Section 9.1.1.17
22	CONTAINS	INCLUDE	DTID (5026) OB-GYN Pelvic Vascular	ANAP	Ref. Section 9.1.1.18

			Measurement Group		
23	CONTAINS	INCLUDE	DTID (SM99005) OB-GYN Mass and Flow Section	ANAP	Ref. Section 9.1.1.19
24	CONTAINS	INCLUDE	DTID (SM99010) OB-GYN User Creation Group Section	ANAP	Ref. Section 9.1.1.20

9.1.1.1 Observation ConText (TID 1001)

**Table 9.1-2
OBSERVATION CONTEXT IN OB-GYN SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
A-1	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
A-2	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician
A-3	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025 ,DCM,"Patient")	
A-4	HAS OBS CONTEXT	PNAME	(121029,DCM, "Subject Name")		Last Name,First Name
A-5	HAS OBS CONTEXT	DATE	(121031,DCM, "Subject Birth Date")		BirthDate
A-6	HAS OBS CONTEXT	CODE	(121032,DCM, "Subject Sex")	(M, DCM, "Male") (F, DCM, "Female") (U, DCM, "Unknown sex")	Gender
A-7	HAS OBS CONTEXT	NUM	(121033,DCM, "Subject Age")	(mo, UCUM, "month")	Not Used

9.1.1.2 Patient Characteristics (TID 5001)

**Table 9.1-3
PATIENT CHARACTERISTICS IN OB-GYN SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
A-8	CONTAINS	CONTAINER	(121118,DCM "Patient Characteristics")		
A-8-1	CONTAINS	TEXT	(121106,DCM, "Comment")		Description
A-8-2	CONTAINS	NUM	(8302-2, LN, "Patient Height")	(cm, UCUM,	Height

				"centimeter") (mm, UCUM, "millimeter")	
A-8-3	CONTAINS	NUM	(29463-7, LN, "Patient Weight")	(kg, UCUM, "kilograms")	Weight
A-8-4	CONTAINS	NUM	(11996-6, LN "Gravida")	(1, UCUM, "no units")	Gravida
A-8-5	CONTAINS	NUM	(11977-6, LN, "Para")	(1, UCUM, "no units")	Para
A-8-6	CONTAINS	NUM	(11612-9, LN, "Aborta")	(1, UCUM, "no units")	Aborta
A-8-7	CONTAINS	NUM	(33065-4, LN, "Ectopic Pregnancies")	(1, UCUM, "no units")	Ectopic

9.1.1.3 OB-GYN Summary Section (TID 5002)

Table 9.1-4

OB-GYN Procedure Summary Section

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-10	CONTAINS	CONTAINER	(121111, DCM, "Summary")			
A-10-1	CONTAINS	DATE	Context ID 12003 Extended OB-GYN Dates	yyyymmdd	Estab. Due Date	Ref. Table 9.1-22
A-10-2	CONTAINS	NUM	(11878-6, LN, "Number of Fetuses")	(1, UCUM, "no units")		
A-10-3	CONTAINS	TEXT	(12186, DCM, "Comment")		Comment	
A-10-4	CONTAINS	CONTAINER	(125008, DCM, "Fetus Summary")			
A-10-4-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")			
A-10-4-2	CONTAINS	NUM	(11878-6, LN, "Number of Fetuses")		Gestations	
A-10-4-3	CONTAINS	NUM	(18185-9, LN, "Gestational Age")		AUA	
			(11885-1, LN, "Gestational Age by LMP")		GA(LMP)	
A-10-4-4	CONTAINS	NUM	(11727-5, LN, "Estimated Weight")	(kg, UCUM, "kg")	EFW	

A-10-4-4-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(Context ID 12014)OB Fetal Body Weight Equations and Tables		Ref. Table 9.1-41
A-10-4-5	CONTAINS	NUM	(11767-1, LN, "EFW percentile rank")	UCUM percentile "percentile"	Pctl.(EFW)	
A-10-4-5-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(Context ID 12016)Estim ated Fetal Weight Percentile Equations and Tables		Ref. Table 9.1-43
A-10-4-6	CONTAINS	NUM	(11948-7, LN, "Fetal Heart Rate")	(bpm, UCUM "bpm")	Fetal HR	

9.1.1.4 OB-GYN Fetal Biometry Ratio Section (TID 5004)

Table 9.1-5

Fetal Biometry Ratio Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	Comments
A-11	CONTAINS	CONTAINER	(125001, DCM, "Fetal Biometry Ratios")		
A-11-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")		
A-11-2	CONTAINS	NUM	(12004, CID, "Fetal Biometry Ratios")	(1, UCUM, "no units")	

	CONTAINS	NUM	Context ID 12004 Extended Fetal Biometry Ratios Measurements	(%, UCUM, "%")	Ref.Table 9.1-23
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9.1.1.5 OB-GYN Fetal Biometry Section (TID 5005)

**Table 9.1-6
Fetal Biometry Section in OB-GYN SR**

	REL	VT	Concept Name	Unit / CODE Value	Comments
A-12	CONTAINS	CONTAINER	(125002, DCM, "Fetal Biometry")		
A-12-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")		
A-12-2	CONTAINS	CONTAINER	(125005, DCM, "Biometry Group")		
A-12-2-1	CONTAINS	NUM	Context ID 12005 Extended Fetal Biometry Measurements	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter") (cm2, UCUM, "Square centimeter")	Ref. Table 9.1-24
A-12-2-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation	
A-12-2-2	CONTAINS	NUM	(18185-9, LN, "Gestational Age")	(d, UCUM, "days")	

A-12-2-2-1	INFERRED FROM	CODE	(121420 , DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12013)Gestational Age Equations and Tables	Ref. Table 9.1-40
A-12-2-3	CONTAINS	NUM	(125012, DCM, "Growth Percentile Rank") (125013, DCM, "Growth Z-score")	(percentile, UCUM, "percentile")	
A-12-2-3-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12015) Fetal Growth Equations and Tables	Ref. Table 9.1-42

9.1.1.6 OB-GYN Fetal Long Bones Section (TID 5006)

Table 9.1-7

Long Bones Sections in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	Comments
A-13	CONTAINS	CONTAINER	(125003, DCM, "Fetal Long Bones")		
A-13-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "FetusID")		Will be present if more than one fetus.
A-13-2	CONTAINS	CONTAINER	(125005, DCM, "Biometry Group")		
A-13-2-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation	

A-13-2-1	CONTAINS	NUM	Context ID 12006 Extended Fetal Long Bones Biometry Measurements	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	Ref. Table 9.1-25
A-13-2-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation	
A-13-2-1-2	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(ContextID 7304) Implant Target Anatomy	Ref. Table 9.1-36
A-13-2-1-2-1	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
A-13-2-2	CONTAINS	NUM	(18185-9, LN, "Gestational Age")	(d, UCUM, "day")	
A-13-2-2-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12013)Gestational Age Equations and Tables	Ref. Table 9.1-40
A-13-2-3	CONTAINS	NUM	(125012, DCM, "Growth Percentile Rank")	(percentile, UCUM, "percentile")	
A-13-2-3-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12015)Fetal Growth Equations and Tables	Ref. Table 9.1-42

9.1.1.7 OB-GYN Fetal Cranium Section (TID 5007)

Table 9.1-8

Fetal Cranium Sections in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	Comments
A-14	CONTAINS	CONTAINER	(125004, DCM, "Fetal Cranium")		
A-14-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "FetusID")		Will be present if more than one fetus.
A-14-2	CONTAINS	CONTAINER	(125005, DCM, "Biometry Group")		
A-14-2-1	CONTAINS	NUM	Context ID 12007 Extended Fetal Cranium	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter") (cm2, UCUM, "Square centimeter")	Ref. Table 9.1-26
A-14-2-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation	
A-14-2-1-2	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(ContextID 12022) Fetal Cranium Anatomic Sites	Ref. Table 9.1-37
A-14-2-1-2-1	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
A-14-2-2	CONTAINS	NUM	(18185-9, LN, "Gestational Age")	(d, UCUM, "day")	
A-14-2-2-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12013) Gestational Age Equations and Tables	Ref. Table 9.1-40

A-14-2-3	CONTAINS	NUM	(125012, DCM, "Growth Percentile Rank")	(percentile, UCUM, "percentile")	
	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12015)Fetal Growth Equations and Tables	Ref. Table 9.1-42

9.1.1.8 OB-GYN Fetal Biophysical Profile Section (TID 5009)

Table 9.1-9

Fetal Biophysical Profile Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-15	CONTAINS	CONTAINER	(125006, DCM, "Biophysical Profile")			
A-15-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")			
A-15-2	CONTAINS	NUM	(11631-9, LN, "Gross Body Movement")	({0:2}, UCUM, "range 0:2")	Fetal Movements	value as entered in the Report.
			(11632-7, LN, "Fetal Breathing")		Fetal Breathing Movements	value as entered in the Report.
			(11635-0, LN, "Fetal Tone")		Fetal Tone	value as entered in the Report.
			(11635-5, LN, "Fetal Heart Reactivity")		Nonstress Test	value as entered in the Report.
			(11630-1, LN, "Amniotic Fluid Volume")		Amniotic Fluid Volume	value as entered in the Report.

			(11634-3, LN, "Biophysical Profile Sum Score")	(1, UCUM, "no units")	Total	Automatically calculates the sum of the scores.
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9.1.1.9 OB-GYN Early Gestation Section (TID 5011)

Table 9.1-10

Early Gestation Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-16	CONTAINS	CONTAINER	(125009, DCM, "Early Gestation")			
A-16-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")			
A-16-2	CONTAINS	CONTAINER	(125005, DCM, "Biometry Group")			
A-16-2-1	CONTAINS	NUM	Context ID 12009 Extended Early Gestation Biometry Measurements	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter") (cm2, UCUM, "Square centimeter")		Ref. Table 9.1-28
A-16-2-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		
A-16-2-2	CONTAINS	NUM	(18185-9, LN Gestational Age	(d, UCUM, "day")		
A-16-2-2-1	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12013)Gestational Age Equations and Tables		Ref. Table 9.1-40

A-16-2-3	CONTAINS	NUM	(125012, DCM, "Growth Percentile Rank")	(percentile, UCUM, "percentile")		
	INFERRED FROM	CODE	(121420, DCM, "Equation") (121424, DCM, "Table of Values")	(ContextID 12015)Fetal Growth Equations and Tables		Ref. Table 9.1-42

9.1.1.10 OB-GYN Amniotic Sac Section (TID 5010)

**Table 9.1-11
Amniotic Sac Section in OB-GYN SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-17	CONTAINS	CONTAINER	(121070, DCM, "Findings")		AFI	
A-17-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(T-F1300, SRT, "Amniotic Sac")		
A-17-2	CONTAINS	NUM	(11627-7, LN, "Amniotic Fluid Index")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	AFI	
			Context ID 12008 Extended OB-GYN Amniotic Sac			Ref. Table 9.1-27
			(99004-01, MDSN, "MVP")		Max Vertical Pocket	
A-17-2-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.1.1.11 OB-GYN Pelvis and Uterus Section (TID 5015)

Table 9.1-12

Pelvis and Uterus Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-18	CONTAINS	CONTAINER	(125011, DCM, "Pelvis and Uterus")			
A-18-1	CONTAINS	CONTAINER	(T-83000, SRT, "Uterus")			
A-18-1-1	CONTAINS	NUM	(11865-3, LN, "Uterus Width")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	Uterus W	
			(11842-2, LN, "Uterus Length")		Uterus L	
			(11859-6, LN, "Uterus Height")		Uterus H	
A-18-1-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		
A-18-1-2	CONTAINS	NUM	(33192-6, LN, "Uterus Volume")	(ml, UCUM, "milliliter")	Uterus Vol.	
A-18-2	CONTAINS	NUM	Context ID 12011 Extended Ultrasound Pelvis and Uterus	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")		Ref. Table 9.1-29
A-18-2-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		
A-18-3	CONTAINS	NUM	Cervix Volume	(ml, UCUM, "milliliter")	Cervix Vol.	

9.1.1.12 OB-GYN Ovaries Section (TID 5012)

Table 9.1-13

Ovaries Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-19	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-19-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(T-87000, SRT, "Ovary")		
A-19-2	CONTAINS	CONTAINER	(T-87000, SRT, "Ovary")			
A-19-2-1	CONTAINS	NUM	(11829-9, LN, "Left Ovary Width")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	Lt. Ovary W	
			(11840-6, LN, "Left Ovary Length")		Lt. Ovary L	
			(11857-0, LN, "Left Ovary Height")		Lt. Ovary H	
			(99005-29, MDSN, "Left Ovary Area")	(cm ² , UCUM, "Square centimeter")	Lt. Ovary Area	
A-19-2-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		
A-19-2-2	CONTAINS	NUM	(12164-0, LN, "Left Ovary Volume")	(ml, UCUM, "milliliter")	Lt. Ovary Vol.	
A-19-3	CONTAINS	CONTAINER	(T-87000, SRT, "Ovary")			
A-19-3-1	CONTAINS	NUM	(11830-7, LN, "Right Ovary Width")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	Rt. Ovary W	
			(11841-4, LN, "Right Ovary Length")		Rt. Ovary L	

			(11858-8, LN, "Right Ovary Height")		Rt. Ovary H	
			(99005-28, MDSN, "Right Ovary Area")	(cm ² , UCUM, "Square centimeter")	Rt. Ovary Area	
A-19-3-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		
A-19-3-2	CONTAINS	NUM	(12165-7, LN, "Right Ovary Volume")	(ml, UCUM, "milliliter")	Rt. Ovary Vol.	

9.1.1.13 OB-GYN Follicles Section (TID 5013)

Table 9.1-14

Left Follicle Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-20	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-20-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(T-87600, SRT, "Ovarian Follicle")		
A-20-2	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A101, SRT, "Left")		
A-20-3	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")			
A-20-3-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")		"1", "2" ...	
A-20-3-2	CONTAINS	NUM	(GD705, SRT, "Volume")	(ml, UCUM, "milliliter")	Vol.	
A-20-3-3	CONTAINS	NUM	(11793-7, LN, "Follicle Diameter")	(cm, UCUM, "centimeter")	"1", "2" ...	

				(mm, UCUM, "millimeter")		
A-20-3-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		

9.1.1.14 OB-GYN Follicles Section (TID 5013)

**Table 9.1-15
Right Follicle Section in OB-GYN SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-21	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-21-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(T-87600, SRT, "Ovarian Follicle")		
A-21-2	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right")		
A-21-3	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")			
A-21-3-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")		"1", "2" ...	
A-21-3-2	CONTAINS	NUM	(G-D705, SRT, "Volume")	(ml, UCUM, "milliliter")	Vol.	
A-21-3-3	CONTAINS	NUM	(11793-7, LN, "Follicle Diameter")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	"1", "2" ...	
A-21-3-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		

9.1.1.15 OB-GYN Cyst Section (TID SM99003)

Table 9.1-16

Cyst Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-22	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-22-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(99009 -01, MDSN, "Cyst")		
A-22-2	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")			
A-22-2-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")		"1", "2" ...	
A-22-2-2	CONTAINS	NUM	(G-D705, SRT, "Volume")	(ml, UCUM, "milliliter")	Vol.	
A-22-2-3	CONTAINS	NUM	(99005-23, MDSN, "Cyst Diameter")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	"1", "2" ...	
A-22-2-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.1.1.16 OB-GYN Fibroid Section (TID SM99004)

Table 9.1-17

Fibroid Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-23	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-23-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(99005-21, MDSN, "Fibroids")		
A-23-2	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")			
A-23-2-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")		"1", "2" ...	
A-23-2-2	CONTAINS	NUM	(G-D705, SRT, "Volume")	(ml, UCUM,	Vol.	

				"milliliter")		
A-23-2-3	CONTAINS	NUM	(MDSN, 99005-22, "Fibroid Diameter")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	"1", "2" ...	
A-23-2-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		

9.1.1.17 OB-GYN Fetal Vascular Measurement Group (TID 5025)

Table 9.1-18

OB-GYN Fetal Vascular Measurement Group in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-24	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-24-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(T-F6800, SRT, "Embryonic Vascular Structure")		
A-24-2	CONTAINS	CONTAINER	Context ID 12141 Extended Fetal Vasculature Anatomical Location			Ref. Table 9.1-30
A-24-2-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")		"1", "2" ...	
A-24-2-2	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right") (G-A101, SRT, "Left") (G-A102, SRT, "Unilateral")		

A-24-2-3	CONTAINS	NUM	Context ID 12119 Vascular Ultrasound Property			Ref. Table 9.1-32
A-24-2-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		

9.1.1.18 OB-GYN Pelvic Vascular Measurement Group (TID 5026)

Table 9.1-19

OB-GYN Pelvic Vascular Measurement Group in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-25	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-25-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, Finding Site)	(T-D6007, SRT, "Pelvic Vascular Structure")		
A-25-2	CONTAINS	CONTAINER	Context ID 12140 Extended Pelvic Vasculature Anatomical Location			Ref. Table 9.1-31
A-25-2-1	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right")		
				(G-A101, SRT, "Left")		
				(G-A102, SRT, "Unilateral")		
A-25-2-2	HAS CONCEPT MOD	TEXT	(112050, DCM, "Anatomic Identifier")		"1", "2" ...	

A-25-2-3	CONTAINS	NUM	Context ID 12119 Vascular Ultrasound Property			Ref. Table 9.1-32
A-25-2-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		

9.1.1.19 OB-GYN Mass and Flow Section (TID SM99005)

Table 9.1-20

Mass and Flow Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-26	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
A-26-1	HAS CONCEPT MOD	CODE	Context ID 99100 Gynecology Finding Site			Ref. Table 9.1-38
A-26-2	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right")		
				(G-A101, SRT, "Left")		
				(G-A102, SRT, "Unilateral")		
A-26-3	CONTAINS	CONTAINER	Context ID 99103 Gynecology Mass and Flow			Ref. Table 9.1-39
A-26-3-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")		"1", "2" ...	
A-26-3-2	CONTAINS	NUM	(11840-6, LN, "Length")	(cm, UCUM, "centimeter")		
	CONTAINS	NUM	(11857-0, LN, "Height")	(mm, UCUM, "millimeter")		
	CONTAINS	NUM	(11829-9, LN, "Width")			

A-26-3-2-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		
A-26-3-3	CONTAINS	NUM	(G-D705, SRT, "Volume")	(ml, UCUM, "milliliter")	Vol.	
A-26-3-4	CONTAINS	NUM	Context ID 12119 Vascular Ultrasound Property			Ref. Table 9.1-32
A-26-3-4-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.1.1.20 OB-GYN User Creation Group Section (TID SM99010)

Table 9.1-21

User Creation Group Section in OB-GYN SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
A-27	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Group Name")			*Creation ID: Randomly generated 7-digit unique ID
A-27-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")		"1", "2" ...	Will be present if the creation group has fetus
	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right") (G-A101, SRT, "Left") (G-A102, SRT, "Unilateral")		Will be present if the creation group has laterality option
A-27-2	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Item Name")			
A-27-2-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.1.2 DCMR Context Groups used in RS85

9.1.2.1 Standard Extended Context Groups in OB-GYN SR

Table 9.1-22

Context ID 12003 Extended OB-GYN Dates

CSD	CV	CM	RS85 Label
LN	11778-8	EDD	Estab.DueDate
LN	11779-6	EDD from LMP	EDD(LMP)
LN	11781-2	EDD from average ultrasound age	EDD(AUA)
LN	11955-2	LMP	LMP
LN	11976-8	Ovulation date	Exp.Ovul.

Table 9.1-23

Context ID 12004 Extended Fetal Biometry Ratios Measurements

CSD	CV	CM	Laterality	RS85 Label
LN	11871-1	FL/AC	N/A	FL/AC
LN	11872-9	FL/BPD	N/A	FL/BPD
LN	11873-7	FL/HC	N/A	FL/HC
LN	11823-2	Cephalic Index	N/A	CI(BPD/OFD)
LN	11947-9	HC/AC	N/A	HC/AC
MDSN	99000-01	FL/FOOT	N/A	FL/FOOT
MDSN	99000-02	ThC/AC	N/A	ThC/AC
MDSN	99000-04	Right Anterior Horn Lateral ventricular to Hemispheric Width Ratio	Right	Rt. Va/Hem
MDSN	99000-05	Left Anterior Horn Lateral ventricular to Hemispheric Width Ratio	Left	Lt. Va/Hem
MDSN	99000-08	Anterior Horn Lateral ventricular to Hemispheric Width Ratio	N/A	Va/Hem
MDSN	99000-06	Right Posterior Horn Lateral ventricular to	Right	Rt. Vp/Hem

		Hemispheric Width Ratio		
MDSN	99000-07	Left Posterior Horn Lateral ventricular to Hemispheric Width Ratio	Left	Lt. Vp/Hem
MDSN	99000-09	Posterior Horn Lateral ventricular to Hemispheric Width Ratio	N/A	Vp/Hem

Table 9.1-24
Context ID 12005 Extended Fetal Biometry Measurements

CSD	CV	CM	RS85 Label
LN	11820-8	Biparietal Diameter	BPD
LN	11851-3	Occipital-Frontal Diameter	OFD
LN	11984-2	Head Circumference	HC
LN	11818-2	Anterior-Posterior Abdominal Diameter	APD
LN	11862-0	Tranverse Abdominal Diameter	TAD
LN	11979-2	Abdominal Circumference	AC
LN	11963-6	Femur Length	FL
LN	11819-0	Anterior-Posterior Trunk Diameter	APTD
LN	11864-6	Transverse Thoracic Diameter	TTD
LN	11988-3	Thoracic Circumference	ThC
LN	11965-1	Foot length	Foot
LN	11834-9	Left Kidney length	Lt. Renal L
LN	11825-7	Left Kidney width	Lt. Renal AP
LN	11836-4	Right Kidney length	Rt. Renal L
LN	11827-3	Right Kidney width	Rt. Renal AP
MDSN	99001-18	Kidney length	Renal L
MDSN	99001-19	Kidney width	Renal AP
LN	33068-8	Thoracic Area	ThA
MDSN	99001-01	Middle Abdominal Diameter	MAD
MDSN	99005-13	Right Pelvis	Rt. Pelvis
MDSN	99005-14	Left Pelvis	Lt. Pelvis
MDSN	99005-01	Pelvis	Pelvis
MDSN	99001-02	Fetal Trunk Area	FTA

MDSN	99001-03	APTDxTTD	APTDxTTD
MDSN	99001-04	Ear Length	Ear
MDSN	99001-05	Middle Phalanx	MP
MDSN	99001-06	Thoracic Anteriorposterior Diameter	ThD ap
MDSN	99001-07	Thoracic Transverse Diameter	ThD trans
MDSN	99001-08	Heart Anteriorposterior Diameter	HrtD ap
MDSN	99001-09	Heart Transverse Diameter	HrtD trans
MDSN	99001-11	Cardio-Thoracic Area Ratio by Distance	CTAR(D)
MDSN	99001-12	Heart Area	HrtA
MDSN	99001-13	Cardio-Thoracic Area Ratio by Area	CTAR(A)
MDSN	99001-23	Cardio-Thoracic Area Ratio by Circumference	CTAR(C)

Table 9.1-25

Context ID 12006 Extended Fetal Long Bones Biometry Measurements

CSD	CV	CM	Laterality	RS85 Label
LN	11966-9	Humerus length	N/A, Right, Left	HUM
LN	11969-3	Ulna length	N/A, Right, Left	ULNA
LN	11968-5	Tibia length	N/A, Right, Left	TIB
LN	11967-7	Radius length	N/A, Right, Left	RAD
LN	11964-4	Fibula length	N/A, Right, Left	FIB
LN	11962-8	Clavicle length	N/A, Right, Left	CLAV
MDSN	99002-01	Vertebral	N/A	Vertebral

Table 9.1-26

Context ID 12007 Extended Fetal Cranium

CSD	CV	CM	Laterality	RS85 Label
LN	11863-8	Trans Cerebellar Diameter	N/A	CEREB
LN	11860-4	Cisterna Magna length	N/A	CM
LN	12146-7	Nuchal Fold thickness	N/A	NF
LN	33069-6	Nuchal Translucency	N/A	NT
LN	11629-3	Outer Orbital Diameter	N/A	OOD
LN	33070-4	Inner Orbital Diameter	N/A	IOD
LN	33197-5	Anterior Horn Lateral	N/A, Right, Left	Va

		ventricular width		
LN	33196-7	Posterior Horn Lateral ventricular width	N/A, Right, Left	Vp
LN	12170-7	Width of Hemisphere	N/A, Right, Left	HEM
SRT	T-11149	Nasal bone	N/A	NB
MDSN	99004-02	Frontomaxillary facial angle	N/A	FMF angle
MDSN	99004-03	Corpus callosum length	N/A	CC length
MDSN	99004-04	Corpus callosum width	N/A	CC width
MDSN	99004-05	Corpus callosum thickness	N/A	CC thickness

Table 9.1-27

Context ID 12008 Extended OB-GYN Amniotic Sac

CSD	CV	CM	RS85 Label
LN	11624-4	First Quadrant Diameter	Q1
LN	11626-9	Second Quadrant Diameter	Q2
LN	11625-1	Third Quadrant Diameter	Q3
LN	11623-6	Fourth Quadrant Diameter	Q4
LN	11627-7	Amniotic Fluid Index	AFI
SRT	M-02550	Diameter	Max Vertical Pocket
MDSN	99004-01	MVP	MVP

Table 9.1-28

Context ID 12009 Extended Early Gestation Biometry Measurements

CSD	CV	CM	RS85 Label
LN	11850-5	Gestational Sac Diameter	GS
LN	11957-8	Crown Rump Length	CRL
LN	11816-6	Yolk Sac length	YS
LN	33071-2	Spine Length	SL

Table 9.1-29

Context ID 12011 Extended Ultrasound Pelvis and Uterus

CSD	CV	CM	RS85 Label
LN	11961-0	Cervix Length	
LN	12145-9	Endometrium Thickness	
MDSN	99005-02	Cervix Height	Cervix H

MDSN	99005-03	Cervix Width	Cervix W
MDSN	99005-04	Cervix Volume	Cervix Vol.
MDSN	99005-05	Septum	Septum
MDSN	99005-06	Interstitial distance	Interstitial distance

Table 9.1-30

Context ID 12141 Extended Fetal Vasculature Anatomical Location

CSD	CV	CM	RS85 Label
SRT	T-42000	Aorta	Fetal Aorta
SRT	T-D0765	Descending Aorta	Dsc Aorta (in Fetal Heart)
SRT	T-45600	Middle Cerebral Artery	Mid Cereb A
SRT	T-44000	Pulmonary Artery	MPA (in Fetal Heart)
SNM3	T-45010	Carotid artery	Lt. Fetal Carotid Rt. Fetal Carotid
MDSN	99008-02	Ductus Venosus	Ductus Venosus
MDSN	99008-03	Renal Artery	Lt. Renal A Rt. Renal A
SRT	T-48710	Inferior vena cava	IVC (in Fetal Heart)
MDSN	99008-07	Ductus Atriosus	Duct A
MDSN	99008-09	Ascending Aorta	Asc Aorta
SRT	T-F1810	Umbilical Artery	Umbilical A
SRT	T-F1820	Umbilical Vein	Umbilical V

Table 9.1-31

Context ID 12140 Extended Pelvic Vasculature Anatomical Location

CSD	CV	CM	RS85 Label
SRT	T-46980	Ovarian Artery	Lt. Ovarian A Rt. Ovarian A
SRT	T-46820	Uterine Artery	Lt. Uterine A (in OB or Gynecology) Rt. Uterine A (in OB or Gynecology)
SRT	T-F1412	Vitelline Artery of Placenta	Placenta A
MDSN	99007-01	Perisystic Flow	Perisystic Flow
MDSN	99007-02	Endometrial Flow	Endometrial Flow

Table 9.1-32

Context ID 12119 Vascular Ultrasound Property

CSD	CV	CM	RS85 Label
INCLUDE	CID 12120 Extended Blood Velocity Measurements		
INCLUDE	CID 12121 Vascular Indices and Ratios		
INCLUDE	CID 12122 Other Vascular Properties		

Table 9.1-33

Context ID 12120 Extended Blood Velocity Measurement

CSD	CV	CM	RS85 Label
LN	11653-3	End Diastolic Velocity	EDV
LN	11726-7	Peak Systolic Velocity	PSV
LN	20352-1	Time averaged mean velocity	TAMV
LN	11692-1	Time averaged peak velocity	TAPV
LN	11726-7	Peak Systolic Velocity	S
MDSN	99008-05	Peak Diastolic Velocity	D
LN	11665-7	Minimum Diastolic Velocity	a
MDSN	99200-03	Max Velocity	Vmax

Table 9.1-34

Context ID 12121 Vascular Indices and Ratios

CSD	CV	CM	RS85 Label
LN	20167-3	Acceleration Index	Acc
SRT	R-101BA	Lumen Area Stenosis	%StA
SRT	R-101BB	Lumen Diameter Stenosis	%StD
LN	12008-9	Pulsatility Index	PI
LN	12023-8	Resistivity Index	RI
LN	12144-2	Systolic to Diastolic Velocity Ratio	S/D
MDSN	99200-01	Diastolic to Systolic Velocity Ratio	D/S
MDSN	99200-00	Systolic to Atrial Velocity Ratio	S/a
MDSN	99200-09	Preload Index	PLI
MDSN	99200-10	Peak velocity index for veins	PVIV

Table 9.1-35

Context ID 12122 Other Vascular Properties

CSD	CV	CM	RS85 Label
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LN	20168-1	Acceleration Time	AccT
LN	20217-6	Deceleration Time	DecT
SRT	G-0364	Vessel lumen diameter	Dout
SRT	R-1025C	Vessel Intimal Diameter	Din
SRT	R-1025D	Vessel Intimal Cross-Sectional Area	Ain
SRT	G-0365	Vessel outside diameter	Vesl. Dist.
SRT	G-0366	Vessel lumen cross-sectional area	Aout
LN	33878-0	Volume flow	Vol. Flow
LN	20247-3	Peak Gradient	PGmax
LN	20256-4	Mean Gradient	PGmean
MDSN	99200-04	Duration Time	Dur T
LN	8867-4	Heart rate	HR

Table 9.1-36
Context ID 7304 Implant Target Anatomy

CSD	CV	CM	RS85 Label
SRT	T-12410	Humerus	HUM
SRT	T-12420	Radius	RAD
SRT	T-12430	Ulna	ULNA
SRT	T-12440	Tibia	TIB
SRT	T-12450	Fibula	FIB
SRT	T-12310	Clavicle	CLAV

Table 9.1-37
Context ID 12022 Fetal Cranium Anatomic Sites

CSD	CV	CM	RS85 Label
SRT	T-A1700	Anterior Horn Lateral Ventricle	Va
SRT	T-A1710	Posterior Horn Lateral Ventricle	Vp
SRT	T-A010F	Cerebral hemisphere	Hem

Table 9.1-38
Context ID 99100 Gynecology Finding Site

CSD	CV	CM	RS85 Label
SRT	M-03000	Mass	Mass

MDSN	99009-04	Endometrial Polyp	Endo. Polyp
MDSN	99009-05	Ovarian Mass	Ovarian Mass
MDSN	99009-08	Ectopic Pregnancy	Ectopic Pregnancy
MDSN	99009-09	Uterine Fibroid	Uterine Fibroid
MDSN	99009-10	Cervix	Cervix Flow

Table 9.1-39

Context ID 99103 Gynecology Mass and Flow

CSD	CV	CM	RS85 Label
SRT	M-03000	Mass	Mass
MDSN	99007-03	Endometrial Polyp Flow	Endo. Polyp
MDSN	99007-04	Ovarian Mass Flow	Ovarian Mass
MDSN	99007-07	Ectopic Flow	Ectopic Flow
MDSN	99007-08	Uterine Fibroid Flow	Uterine Fibroid
MDSN	99007-09	Cervical Flow	Cervix Flow

9.1.2.2 Gestational Age Equations and Tables (Context Group 12013)

Table 9.1-40

Gestational Age Equations and Tables

Coding Scheme Designator	Code Value	Code Meaning
LN	11889-3	AC, Campbell 1975
LN	11892-7	AC, Hadlock 1984
LN	33076-1	AC, Shinozuka 1996
LN	11902-4	BPD, Hadlock 1984
LN	33538-0	BPD, Hansmann 1986
LN	11905-7	BPD, Jeanty 1984
LN	11906-5	BPD, Kurtz 1980
LN	33082-9	BPD, Osaka 1989
LN	11907-3	BPD, Sabbagha 1978
LN	33084-5	BPD, Shinozuka 1996
LN	33086-0	BPD-oi, Chitty 1997
LN	33087-8	BPD-oo, Chitty 1997
LN	33088-6	Clavical length, Yarkoni 1985

LN	11910-7	CRL, Hadlock 1992
LN	33540-6	CRL, Hansmann 1986
LN	11913-1	CRL, Nelson 1981
LN	33093-6	CRL, Osaka 1989
LN	33094-4	CRL, Rempen 1991
LN	11914-9	CRL, Robinson 1975
LN	33095-1	CRL, Shinozuka 1996
LN	33098-5	FL, Chitty 1997
LN	11920-6	FL, Hadlock 1984
LN	33541-4	FL, Hansmann 1986
LN	11922-2	FL, Hohler 1982
LN	11923-0	FL, Jeanty 1984
LN	33101-7	FL, Osaka 1989
LN	33102-5	FL, Shinozuka 1996
LN	11928-9	GS, Hellman 1969
LN	33107-4	GS, Nyberg 1992
LN	33108-2	GS, Tokyo 1986
LN	33110-8	HC measured, Chitty 1997
LN	33111-6	HC derived, Chitty 1997
LN	11932-1	HC, Hadlock 1984
LN	33543-0	HC, Hansmann 1986
LN	11936-2	Humerus, Jeanty 1984
LN	33117-3	Humerus Length, Osaka 1989
LN	33120-7	OFD, Hansmann 1986
LN	11941-2	Tibia, Jeanty 1984
LN	11944-6	Ulna, Jeanty 1984
LN	11929-7	GS, Rempen 1991
LN	33083-7	BPD, Rempen 1991

9.1.2.3 OB Fetal Body Weight Equations and Tables (Context ID 12014)

Table 9.1-41

OB Fetal Body Weight Equations and Tables

Coding Scheme Designator	Code Value	Code Meaning
LN	11756-4	EFW by AC, Campbell 1975

LN	11738-2	EFW by AC, BPD, Hadlock 1984
LN	11735-8	EFW by AC, BPD, FL, Hadlock 1985
LN	11732-5	EFW by AC, BPD, FL, HC, Hadlock 1985
LN	11751-5	EFW by AC, FL, Hadlock 1985
LN	11746-5	EFW by AC, FL, HC, Hadlock 1985
LN	33139-7	EFW by BPD, TTD, Hansmann 1986
LN	11739-0	EFW by AC and BPD, Shepard 1982
LN	33140-5	EFW by BPD, FTA, FL, Osaka 1990

9.1.2.4 Fetal Growth Equations and Tables (Context ID 12015)

Table 9.1-42

Fetal Growth Equations and Tables

Coding Scheme Designator	Code Value	Code Meaning
LN	33145-4	AC by GA, ASUM 2000
LN	33146-2	AC by GA, Hadlock 1984
LN	33147-0	AC (measured) by GA, Chitty 1994
LN	33546-3	AC (derived) by GA, Chitty 1994
LN	33149-6	AC by GA, Shinozuka 1996
LN	33151-2	BPD by GA, ASUM 2000
LN	33198-3	BPD by GA, Hadlock 1984
LN	33556-2	BPD outer-inner by GA, Chitty 1994
LN	33152-0	BPD outer-outer by GA, Chitty 1994
LN	33156-1	BPD by GA, Shinozuka 1996
LN	33161-1	CRL by GA, Shinozuka 1996
LN	33164-5	Fibula by GA, Jeanty 1983
LN	33165-2	FL by GA, ASUM 2000
LN	33166-0	FL by GA, Hadlock 1984
LN	33167-8	FL by GA, Chitty 1994
LN	33170-2	FL by GA, Shinozuka 1996
LN	33172-8	HC by GA, ASUM 2000
LN	33173-6	HC by GA, Hadlock 1984
LN	33174-4	HC derived by GA, Chitty 1994
LN	33177-7	Humerus Length by GA, ASUM 2000

LN	33178-5	OFD by GA, ASUM 2000
LN	33180-1	Radius by GA, Jeanty 1983
LN	33181-9	TCD by GA Goldstein 1987
LN	33155-3	BPD by GA, Rempen 1991
LN	33171-0	GS by GA, Rempen 1991

9.1.2.5 Estimated Fetal Weight Percentile Equations and Tables (Context ID 12016)

Table 9.1-43

Estimated Fetal Weight Percentile Equations and Tables

Coding Scheme Designator	Code Value	Code Meaning
LN	33183-5	FWP by GA, Hadlock 1991
LN	33184-3	FWP by GA, Williams, 1982
LN	33189-2	FWP by GA, Brenner 1976

9.2 VASCULAR STRUCTURED REPORT TEMPLATE

9.2.1 Vascular Ultrasound Report Templates (TID 5100)

**Table 9.2-1
Vascular Ultrasound Procedure Report Template**

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	(125100, DCM, "Vascular Ultrasound Procedure Report")		
2	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context		
3	CONTAINS	INCLUDE	DTID (5101) Vascular Patient Characteristics		
4	CONTAINS	INCLUDE	DTID (5102) Vascular Procedure Summary Section		
5	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-40501, SRT, "Blood Vessel of Head")	TCD (Unilateral)
				\$SectionLaterality = EV (G-A103, SRT, "Unilateral")	
				\$Anatomy = DCID (12106) Intracranial Cerebral Vessels (unilateral)	
6	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-40501, SRT, "Blood Vessel of Head")	Rt. TCD
				\$SectionLaterality = EV (G-A100, SRT, "Right")	
				\$Anatomy = DCID (12105) Intracranial Cerebral Vessels	
7	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-40501, SRT, "Blood Vessel of Head")	Lt. TCD
				\$SectionLaterality = EV (G-A101, SRT, "Left")	
				\$Anatomy = DCID (12105) Intracranial Cerebral Vessels	
8	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound	\$SectionScope = DT (T-40501,	TCD

			Section	SRT, "Blood Vessel of Head") \$Anatomy = DCID (12105) Intracranial Cerebral Vessels	
9	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-45005, SRT, "Artery of neck") \$SectionLaterality = EV (G-A100, SRT, "Right") \$Anatomy = DCID (12104) Extracranial Arteries \$AnatomyRatio = DCID (12123) Carotid Ratios	Rt. Carotid
9	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-45005, SRT, "Artery of neck") \$SectionLaterality = EV (G-A101, SRT, "Left") \$Anatomy = DCID (12104) Extracranial Arteries \$AnatomyRatio = DCID (12123) Carotid Ratios	Lt. Carotid
10	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-47040, SRT, "Artery of Lower Extremity") \$SectionLaterality = EV (G-A100, SRT, "Right") \$Anatomy = DCID (12109) Lower Extremity Arteries	Rt. LE Artery
11	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-47040, SRT, "Artery of Lower Extremity") \$SectionLaterality = EV (G-A101, SRT, "Left") \$Anatomy = DCID (12109) Lower Extremity Arteries	Lt. LE Artery
12	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-49403, SRT, "Vein of Lower Extremity") \$SectionLaterality = EV (G-A100, SRT, "Right") \$Anatomy = DCID (12110) Lower	Rt. LE Vein

				Extremity Veins	
13	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-49403, SRT, "Vein of Lower Extremity")	Lt. LE Vein
				\$SectionLaterality = EV (G-A101, SRT, "Left")	
				\$Anatomy = DCID (12110) Lower Extremity Veins	
14	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-47020, SRT, "Artery Of Upper Extremity")	Rt. UE Artery
				\$SectionLaterality = EV (G-A100, SRT, "Right")	
				\$Anatomy = DCID (12107) Upper Extremity Arteries	
15	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-47020, SRT, "Artery Of Upper Extremity")	Lt. UE Artery
				\$SectionLaterality = EV (G-A101, SRT, "Left")	
				\$Anatomy = DCID (12107) Upper Extremity Arteries	
16	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-49103, SRT, "Vein Of Upper Extremity")	Rt. UE Vein
				\$SectionLaterality = EV (G-A100, SRT, "Right")	
				\$Anatomy = DCID (12108) Upper Extremity Veins	
17	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-49103, SRT, "Vein Of Upper Extremity")	Lt. UE Vein
				\$SectionLaterality = EV (G-A101, SRT, "Left")	
				\$Anatomy = DCID (12108) Upper Extremity Veins	
18	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-71019, SRT, "Vascular Structure Of Kidney")	Rt. Abdomen Renal
				\$SectionLaterality = EV (G-A100, SRT, "Right")	

				\$Anatomy = DCID (12115) Renal Vessels	
				\$AnatomyRatio = DCID (12124) Renal Ratios	
19	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-71019, SRT, "Vascular Structure Of Kidney")	Lt. Abdomen Renal
				\$SectionLaterality = EV (G-A101, SRT, "Left")	
				\$Anatomy = DCID (12115) Renal Vessels	
				\$AnatomyRatio = DCID (12124) Renal Ratios	
20	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-46002, SRT, "Artery of Abdomen")	Abdomen Artery (Unilateral)
				\$SectionLaterality = EV (G-A103, SRT, "Unilateral")	
				\$Anatomy = DCID (12112) Abdominal Arteries (unilateral)	
21	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-46002, SRT, "Artery of Abdomen")	Rt. Abdomen Artery
				\$SectionLaterality = EV (G-A100, SRT, "Right")	
				\$Anatomy = DCID (12111) Abdominal Arteries (lateral)	
22	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-46002, SRT, "Artery of Abdomen")	Lt. Abdomen Artery
				\$SectionLaterality = EV (G-A101, SRT, "Left")	
				\$Anatomy = DCID (12111) Abdominal Arteries (lateral)	
23	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-46002, SRT, "Artery of Abdomen")	Abdomen Artery
				\$Anatomy = DCID (12111) Abdominal Arteries (lateral)	
24	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound	\$SectionScope = DT (T-487A0,	Abdomen

			Section	SRT, "Vein of Abdomen") \$SectionLaterality = EV (G-A103, SRT, "Unilateral") \$Anatomy = DCID (12114) Abdominal Veins (unilateral)	Vein (Unilateral)
25	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-487A0, SRT, "Vein of Abdomen") \$SectionLaterality = EV (G-A100, SRT, "Right") \$Anatomy = DCID (12113) Abdominal Veins (lateral)	Rt. Abdomen Vein
26	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-487A0, SRT, "Vein of Abdomen") \$SectionLaterality = EV (G-A101, SRT, "Left") \$Anatomy = DCID (12113) Abdominal Veins (lateral)	Lt. Abdomen Vein
27	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-487A0, SRT, "Vein of Abdomen") \$Anatomy = DCID (12113) Abdominal Veins (lateral)	Abdomen Vein
28	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section	\$SectionScope = DT (T-D4000, SRT, "Abdomen") \$Anatomy = DCID (6204) Anatomic Non-Colon Findings	Abdomen (B- MODE)

9.2.1.1 Observation Context (TID 1001)

**Table 9.2-2
Observation Context in Vascular SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
B-1	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
B-2	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician

B-3	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025, DCM, "Patient")	
B-4	HAS OBS CONTEXT	PNAME	(121029, DCM, "Subject Name")		Last Name,First Name
B-5	HAS OBS CONTEXT	DATE	(121031, DCM, "Subject Birth Date")		BirthDate
B-6	HAS OBS CONTEXT	CODE	(121032, DCM, "Subject Sex")	(M, DCM, "Male")	Gender
				(F, DCM, "Female")	
				(U, DCM, "Unknown sex")	
B-7	HAS OBS CONTEXT	NUM	(121033, DCM, "Subject Age")	(mo, UCUM, "month")	Not Used

9.2.1.2 Vascular Patient Characteristics (TID 5101)

Table 9.2-3

Patient Characteristics in Vascular SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
B-8	CONTAINS	CONTAINER	(121118, DCM, "Patient Characteristics")		
B-8-1	CONTAINS	NUM	(121033, DCM, "Subject Age")	Units = DCID (7456) Units of Measure for Age	Description
B-8-2	CONTAINS	CODE	(121032, DCM, "Subject Sex")	DCID (7455) Sex	
B-8-3	CONTAINS	NUM	(8867-4, LN, "Heart Rate")		HR
B-8-4	CONTAINS	NUM	(8277-6, LN, "Body Surface Area")		BSA
B-8-4-1	INFERRED FROM	CODE	(8278-4, LN, "Body Surface Area Formula")	(122241, DCM, "BSA = 0.007184*WT^0.425*HT^ 0.725")	
B-8-5	CONTAINS	NUM	(F-008EC, SRT, "Systolic Blood Pressure")		
B-8-6	CONTAINS	NUM	(F-008ED, SRT, "Diastolic Blood Pressure")		

9.2.1.3 Vascular Procedure Summary Section (TID 5102)

**Table 9.2-4
Vascular Summary Section**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
B-9	CONTAINS	CONTAINER	DT (121111, DCM, "Summary")		
B-9-1	CONTAINS	TEXT	DCID (12101) Vascular Summary		

9.2.1.4 Vascular Ultrasound Section (TID 5103)

**Table 9.2-5
Vascular Ultrasound Section**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
B-10		CONTAINER	DT (121070, DCM, "Findings")		
B-10-1	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT, "Finding Site")	\$SectionScope	
B-10-2	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")	\$SectionLaterality	
	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group	\$AnatomyGroup = \$Anatomy	
B-10-3	CONTAINS	CONTAINER	\$AnatomyGroup		
B-10-3-1	HAS CONCEPT MOD	CODE	EV (G-A1F8, SRT, "Topographical Modifier")	DCID (12116) Vessel Segment Modifiers	
B-10-3-2	HAS CONCEPT MOD	CODE	EV (125101, DCM, "Vessel Branch")	DCID (12117) Vessel Branch Modifiers	
	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = DCID (12119) Vascular Ultrasound Property \$Derivation = DCID (3627) Measurement Type	
B-10-3-3		NUM	\$Measurement	Units = \$Units	

B-10-3-3-1	HAS CONCEPT MOD	CODE	EV (121401, DCM, "Derivation")	\$Derivation	
	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$AnatomyRatio	
B-10-3-4		NUM	\$Measurement	Units = \$Units	
B-10-4	CONTAINS	INCLUDE	DTID (SM99300) S-Shearwave Group	Ref. Table 9.2-16	Abdominal Shearwave
B-10-5	CONTAINS	INCLUDE	DTID (SM99310) S-Shearwave Imaging Elasticity Group	Ref. Table 9.2-17	
B-10-6	CONTAINS	INCLUDE	DTID (SM99320) S-Shearwave Imaging Elasticity Ratio Group	Ref. Table 9.2-18	
	CONTAINS	INCLUDE	DTID (SM99110) Vascular User Creation Group Section		
B-10-7	CONTAINS	CONTAINER	EV (99900-Creation ID, MDSN, "User Creation Group Name")	*Creation ID: Randomly generated 7-digit unique ID	
B-10-7-1	HAS CONCEPT MOD	CODE	EV (G-A1F8, SRT, "Topographical Modifier")	DCID (12116) Vessel Segment Modifiers	
B-10-7-2	CONTAINS	NUM	EV (99900-Creation ID, MDSN, "User Creation Item Name")		
B-10-7-2-1	HAS CONCEPT MOD	CODE	EV (121401, DCM, "Derivation")	\$Derivation	

9.2.2 Vascular Measurement and Calculation used in Vascular SR

Table 9.2-6
Carotid

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Subclavian A	(T-46100, SRT, "Subclavian Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")		

EDV	(11653-3, LN, "End Diastolic Velocity")		
TAPV	(11692-1, LN, "Time averaged peak velocity")		
TAMV	(20352-1, LN, "Time averaged mean velocity")		
PGmax	(20247-3, LN, "Peak Gradient")		
PGmean	(20256-4, LN, "Mean Gradient")		
S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")		
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")		
RI	(12023-8, LN, "Resistivity Index")		
PI	(12008-9, LN, "Pulsatility Index")		
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional area")		
%StA Inner Area	(R-1025D, SRT, "Vessel Intimal Cross-Sectional Area")		
%StA	(R-101BA, SRT, "Lumen Area Stenosis")		
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen diameter")		
%StD Inner Dist.	(R-1025C, SRT, "Vessel Intimal Diameter")		
%StD	(R-101BB, SRT, "Lumen Diameter Stenosis")		
Vesl. Area	(99200-02, MDSN, "Vessel Area")		
Vol. Flow(A)	(33878-0, LN, "Volume flow")		
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")		
Vol. Flow(D)	(33878-0, LN, "Volume flow")		
CCA	(T-45100, SRT, "Common Carotid Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")		
EDV	(11653-3, LN, "End Diastolic Velocity")		
TAPV	(11692-1, LN, "Time averaged peak velocity")		
TAMV	(20352-1, LN, "Time averaged mean velocity")		
PGmax	(20247-3, LN, "Peak Gradient")		
PGmean	(20256-4, LN, "Mean Gradient")		

S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")		
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")		
RI	(12023-8, LN, "Resistivity Index")		
PI	(12008-9, LN, "Pulsatility Index")		
%StA	(R-101BA , SRT, "Lumen Area Stenosis")		
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional area")		
%StA Inner Area	(R-1025D , SRT, " Vessel Intimal Cross-Sectional Area")		
%StD	(R-101BB , SRT, "Lumen Diameter Stenosis")		
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen diameter")		
%StD Inner Dist.	(R-1025C , SRT, "Vessel Intimal Diameter")		
Vesl. Area	(99200-02, MDSN, "Vessel Area")		
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")		
Vol. Flow	(33878-0, LN, "Volume flow")		
IMT	(99200-05, MDSN, "Intima-media thickness")		
Bulb	(T-45170, SRT, "Carotid Bulb")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
ICA	(T-45300, SRT, "Internal Carotid Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
ECA	(T-45200, SRT, "External Carotid Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")

Vertebral A	(T-45700, SRT, "Vertebral Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Vertebral 0-4	(99201-11, MDSN, "Vertebral 0") (99201-10, MDSN, "Vertebral 1") (99201-9, MDSN, "Vertebral 2") (99201-8, MDSN, "Vertebral 3") (99201-7, MDSN, "Vertebral 4")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Comment	(121106, DCM, "Comment")		

Table 9.2-7
LE Artery

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
CIA	(T-46710, SRT, "Common Iliac Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")		
EDV	(11653-3, LN, "End Diastolic Velocity")		
TAPV	(11692-1, LN, "Time averaged peak velocity")		
TAMV	(20352-1, LN, " Time averaged mean velocity")		
PGmax	(20247-3, LN, "Peak Gradient")		
PGmean	(20256-4, LN, "Mean Gradient")		
S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")		
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")		
RI	(12023-8, LN, "Resistivity Index")		

PI	(12008-9, LN, "Pulsatility Index")		
%StA	(R-101BA , SRT, "Lumen Area Stenosis")		
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional area")		
%StA Inner Area	(R-1025D , SRT, "Vessel Intimal Cross-Sectional Area")		
%StD	(R-101BB , SRT, "Lumen Diameter Stenosis")		
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen diameter")		
%StD Inner Dist.	(R-1025C , SRT, "Vessel Intimal Diameter")		
Vesl. Area	(99200-02, MDSN, "Vessel Area")		
Vol. Flow	(33878-0, LN, "Volume flow")		
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")		
IIA	(T-46740, SRT, "Internal Iliac Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
EIA	(T-46910, SRT, "External Iliac Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
CFA	(T-47400, SRT, "Common Femoral Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
SFA	(T-47403, SRT, "Superficial Femoral Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")

DFA	(T-47440, SRT, "Profunda Femoris Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Popliteal A	(T-47500, SRT, "Popliteal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
ATA	(T-47700, SRT, "Anterior Tibial Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PTA	(T-47600, SRT, "Posterior Tibial Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Peroneal A	(T-47630, SRT, "Peroneal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
DPA	(T-47741, SRT, "Dorsalis Pedis Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")

MPA	(T-47690, SRT, "Plantar Arterial Arch")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
LPA	(T-47690, SRT, "Plantar Arterial Arch")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Metatarsal A	(99201-1, MDSN, "Metatarsal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Digital A	(99201-2, MDSN, "Digital Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Comment	(121106, DCM, "Comment")		

**Table 9.2-8
LE Vein**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
CIV	(T-48920, SRT, "Common Iliac Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT

			"Distal")
Vmax	(99200-03, MDSN, "Max Velocity")		
Duration Time	(99200-04, MDSN, "Duration Time")		
Vesl. Dist.	(G-0365, SRT, "Vessel outside diameter")		
Vesl. Area.	(MDSN, 99200-02, "Vessel Area")		
TAMV	(LN, 20352-1, "Time averaged mean velocity")		
Vol. Flow	(LN, 33878-0, "Volume flow")		
IIV	(T-48940, SRT, "Internal iliac vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
EIV	(T-48930, SRT, "External Iliac Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
CFV	(G-035B, SRT, "Common Femoral Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
SFV	(G-035A , SRT, "Superficial Femoral Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
GSV	(T-49530, SRT, "Great Saphenous Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal")

			(G-A119, SRT "Distal")
Popliteal V	(T-49640, SRT, "Popliteal Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
LSV	(T-49550, SRT, "Lesser Saphenous Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
ATV	(T-49630, SRT, "Anterior Tibial Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
PTV	(T-49620, SRT, "Posterior Tibial Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Peroneal V	(T-49650, SRT, "Peroneal Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
MPV	(99203-01, MDSN, "Medial Plantar Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal")

			(G-A119, SRT "Distal")
LPV	(99203-02, MDSN, "Lateral Plantar Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Metatarsal V	(99203-03, MDSN, "Metatarsal Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Digital V	(99203-04, MDSN, "Digital Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Comment	(121106, DCM, "Comment")		

Table 9.2-9
UE Artery

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Subclavian A	(T-46100, SRT, "Subclavian Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")		
EDV	(11653-3, LN, "End Diastolic Velocity")		
TAPV	(11692-1, LN, "Time averaged peak velocity")		

TAMV	(20352-1, LN, "Time averaged mean velocity")		
PGmax	(20247-3, LN, "Peak Gradient")		
PGmean	(20256-4, LN, "Mean Gradient")		
S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")		
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")		
RI	(12023-8, LN, "Resistivity Index")		
PI	(12008-9, LN, "Pulsatility Index")		
%StA	(R-101BA , SRT, "Lumen Area Stenosis")		
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional area")		
%StA Inner Area	(R-1025D, SRT, "Vessel Intimal Cross-Sectional Area")		
%StD	(R-101BB, SRT, "Lumen Diameter Stenosis")		
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen diameter")		
%StD Inner Dist.	(R-1025C , SRT, "Vessel Intimal Diameter")		
Vesl. Area	(99200-02, MDSN, "Vessel Area")		
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")		
Vol. Flow	(33878-0, LN, "Volume flow")		
Axillary A	(T-47100, SRT, "Axillary Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Brachial A	(T-47160, SRT, "Brachial Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Radial A	(T-47300, SRT, "Radial Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal")

			(G-A119, SRT "Distal")
Ulnar A	(T-47200, SRT, "Ulnar Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
SPA	(T-47240, SRT, "Superficial Palmar Arch")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Comment	(121106, DCM, "Comment")		

**Table 9.2-10
UE Vein**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Internal Jugular V	(T-48170, SRT, "Internal Jugular vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Vmax	(99200-03, MDSN, "Max Velocity")		
Duration Time	(99200-04, MDSN, "Duration Time")		
Vesl. Dist.	(G-0365, SRT, "Vessel outside diameter")		
Vesl. Area.	(MDSN, 99200-02, "Vessel Area")		
TAMV	(LN, 20352-1, "Time averaged mean velocity")		
Vol. Flow	(LN, 33878-0, "Volume flow")		
Innominate V	(T-48620, SRT, "Innominate vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-

			longitudinal") (G-A119, SRT "Distal")
Subclavian V	(T-48330, SRT, "Subclavian vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Axillary V	(T-49110, SRT, "Axillary vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Brachial V	(T-49350, SRT, "Brachial vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Cephalic V	(T-49240, SRT, "Cephalic vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Basilic V	(T-48052, SRT, "Basilic vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Radial V	(T-49340, SRT, "Radial vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-

			longitudinal") (G-A119, SRT "Distal")
Ulnar V	(T-49330, SRT, "Ulnar vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Comment	(121106, DCM, "Comment")		

**Table 9.2-11
TCD**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Basilar A	(T-45800, SRT, "Basilar Artery")	(G-A103, SRT, "Unilateral")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")		
EDV	(11653-3, LN, "End Diastolic Velocity")		
TAPV	(11692-1, LN, "Time averaged peak velocity")		
TAMV	(20352-1, LN, "Time averaged mean velocity")		
PGmax	(20247-3, LN, "Peak Gradient")		
PGmean	(20256-4, LN, "Mean Gradient")		
S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")		
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")		
RI	(12023-8, LN, "Resistivity Index")		
PI	(12008-9, LN, "Pulsatility Index")		

%StA	(R-101BA , SRT, "Lumen Area Stenosis")		
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional area")		
%StA Inner Area	(R-1025D, SRT, "Vessel Intimal Cross-Sectional Area")		
%StD	(R-101BB, SRT, "Lumen Diameter Stenosis")		
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen diameter")		
%StD Inner Dist.	(R-1025C , SRT, "Vessel Intimal Diameter")		
Vesl. Area	(99200-02, MDSN, "Vessel Area")		
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")		
Vol. Flow	(33878-0, LN, "Volume flow")		
ACA	(T-45540, SRT, "Anterior Cerebral Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal")
MCA	(T-45600, SRT, "Middle Cerebral Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PCA (P1)	(R-10253, SRT, "Posterior Cerebral Artery P1 Segment")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
PCA (P2)	(R-10255, SRT, "Posterior Cerebral Artery P2 Segment")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
AComma	(T-45530, SRT, "Anterior communicating artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
PComma	(T-45520, SRT, "Posterior communicating artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
ExtICA	(99201-6, MDSN, "Exterior intracranial carotid artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
TICA	(R-102BD, SRT, "Terminal internal carotid artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	

Siphon	(T-45308, SRT, "Carotid Siphon")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
Ophthalmic A.	(T-45400, SRT, "Ophthalmic Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
Vertebral A.	(T-45700, SRT, "Vertebral artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
Vertebral 4	(99201-7, MDSN, "Vertebral 4")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	

**Table 9.2-12
Abdomen Artery**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Aorta	(T-42000, SRT, "Aorta")	(G-A103, SRT, "Unilateral")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")		
EDV	(11653-3, LN, "End Diastolic Velocity")		
TAPV	(11692-1, LN, "Time averaged peak velocity")		
TAMV	(20352-1, LN, "Time averaged mean velocity")		
PGmax	(20247-3, LN, "Peak Gradient")		
PGmean	(20256-4, LN, "Mean Gradient")		
S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")		
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")		
RI	(12023-8, LN, "Resistivity Index")		
PI	(12008-9, LN, "Pulsatility Index")		
%StA	(R-101BA, SRT, "Lumen Area Stenosis")		
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional		

	area")		
%StA Inner Area	(R-1025D, SRT, "Vessel Intimal Cross-Sectional Area")		
%StD	(R-101BB, SRT, "Lumen Diameter Stenosis")		
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen diameter")		
%StD Inner Dist.	(R-1025C, SRT, "Vessel Intimal Diameter")		
Vesl. Area	(99200-02, MDSN, "Vessel Area")		
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")		
Vol. Flow	(33878-0, LN, "Volume flow")		
Celiac A	(T-46400, SRT, "Celiac Axis")	(G-A103, SRT, "Unilateral")	
Splenic A	(T-46460, SRT, "Splenic Artery")	(G-A103, SRT, "Unilateral")	
SMA	(T-46510, SRT, "Superior Mesenteric Artery")	(G-A103, SRT, "Unilateral")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
IMA	(T-46520, SRT, "Inferior Mesenteric Artery")	(G-A103, SRT, "Unilateral")	
Renal Aortic Ratio	(33869-9, LN, "Renal Artery/Aorta velocity ratio")	(G-A103, SRT, "Unilateral")	
Renal A. PSV	(99200-07, MDSN "Renal A.PSV")		
Aorta PSV	(99200-08, MDSN "Aorta PSV")		
Hepatic A	(T-46420, SRT, "Hepatic artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
Iliac A	(T-46710, SRT, "Common Iliac Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")

G.D.A	(T-46440, SRT, "Gastroduodenal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
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**Table 9.2-13
Abdomen Vein**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Hepatic V	(T-48720, SRT, "Hepatic Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
Vmax	(99200-03, MDSN, "Max Velocity")		
Duration Time	(99200-04, MDSN, "Duration Time")		
Vesl. Dist.	(G-0365, SRT, "Vessel outside diameter")		
Vesl. Area.	(MDSN, 99200-02, "Vessel Area")		
TAMV	(LN, 20352-1, "Time averaged mean velocity")		
Vol. Flow	(LN, 33878-0, "Volume flow")		
IVC	(T-48710, SRT, "Inferior Vena Cava")	(G-A103, SRT, "Unilateral")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
Portal V	(T-48810, SRT, "Portal Vein")	(G-A103, SRT, "Unilateral")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid- longitudinal") (G-A119, SRT "Distal")
SMV	(T-48840, SRT, "Superior Mesenteric Vein")	(G-A103, SRT, "Unilateral")	
IMV	(T-48910, SRT, "Inferior Mesenteric Vein")	(G-A103, SRT, "Unilateral")	
Splenic V	(T-48890, SRT, "Splenic Vein")	(G-A103, SRT, "Unilateral")	

**Table 9.2-14
Abdomen Renal**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Vessel Branch	Topographical Modifier
Renal A	(T-46600, SRT, "Renal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(G-A332, SRT, "Main")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
PSV	(11726-7, LN, "Peak Systolic Velocity")			
EDV	(11653-3, LN, "End Diastolic Velocity")			
TAPV	(11692-1, LN, "Time averaged peak velocity")			
TAMV	(20352-1, LN, "Time averaged mean velocity")			
PGmax	(20247-3, LN, "Peak Gradient")			
PGmean	(20256-4, LN, "Mean Gradient")			
S/D	(12144-2, LN, "Systolic to Diastolic Velocity Ratio")			
D/S	(99200-01, MDSN, "Diastolic to Systolic Velocity Ratio")			
RI	(12023-8, LN, "Resistivity Index")			
PI	(12008-9, LN, "Pulsatility Index")			
%StA	(R-101BA , SRT, "Lumen Area Stenosis")			
%StA Outer Area	(G-0366, SRT, "Vessel lumen cross-sectional area")			
%StA Inner Area	(R-1025D, SRT, "Vessel Intimal Cross-Sectional Area")			
%StD	(R-101BB, SRT, "Lumen Diameter Stenosis")			
%StD Outer Dist.	(G-0364, SRT, "Vessel lumen			

	diameter")			
%StD Inner Dist.	(R-1025C , SRT, "Vessel Intimal Diameter")			
Vesl. Area	(99200-02, MDSN, "Vessel Area")			
Vesl. Dist	(G-0365, SRT, "Vessel outside diameter")			
Vol. Flow	(33878-0, LN, "Volume flow")			
Upper Renal A	(T-46600, SRT, "Renal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(99201-4, MDSN, "Upper")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Lower Renal A	(T-46600, SRT, "Renal Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	(99201-5, SRT, "Lower")	(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Arcuate Renal A	(T-4668A, SRT, "Arcuate Artery of the Kidney")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")		(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Lobular Renal A	(T-4667D, SRT, "Interlobar Artery of Kidney")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")		(G-A118, SRT, "Proximal") (G-A188, SRT "Mid-longitudinal") (G-A119, SRT "Distal")
Arcuate A	(99201-3, MDSN, "Arcuate Artery")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")		
Renal Vein	(SRT, T-48740, "Renal Vein")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")		

**Table 9.2-15
Abdomen (2D)**

RS85 Label	DICOM SR Concept Name (CDS CV CM)	Laterality	Topographical Modifier
Liver	(T-62000, SRT, "Liver")	(G-A103, SRT, "Unilateral")	
Spleen	(T-C3000, SRT, "Spleen")	(G-A103, SRT, "Unilateral")	
Gall bladder	(T-63000, SRT, "Gall bladder")	(G-A103, SRT, "Unilateral")	
Pancreas	(T-65000, SRT, "Pancreas")	(G-A103, SRT, "Unilateral")	
Pancreas Head	(99016-2, MDSN, "Pancreas Head")		
Pancreas Body	(99016-3, MDSN, "Pancreas Body")		
Pancreas Tail	(99016-4, MDSN, "Pancreas Tail")		
Bowel	(99016-6, MDSN, "Bowel")		
Kidney	(T-71000, SRT, "Kidney")	(G-A100, SRT, "Right") (G-A101, SRT, "Left")	
Kidney Vol.	99016-19, MDSN, "Kidney Volume")		
Kidney L	(99016-20 MDSN, "Kidney Length")		
Kidney W	(99016-21 MDSN, "Kidney Width")		
Kidney H	(99016-22 MDSN, "Kidney Height")		

9.2.3 Shearwave Measurement and Caclulation

9.2.3.1 S-Shearwave Group (TID SM99300)

**Table 9.2-16
S-Shearwave Section**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
1		CONTAINER	(99300-01, MDSN, "S-Shearwave")		
1-1	HAS OBS CONTEXT	TEXT	(99300-02, MDSN, "Site")	A,B,C,D	

1-2	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")		No.
1-2-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")	1~20	
1-2-2	CONTAINS	NUM	(99300-03, MDSN, "Shearwave Stiffness Pressure")	(kPa, UCUM, "kilopascal")	Stiffness Preessure (kPA)
1-2-3	CONTAINS	NUM	(99300-04, MDSN, "Shearwave Stiffness Velocity")	(m/s, UCUM, "m/s")	Stiffness Preessure (m/s)
1-2-4	CONTAINS	NUM	(G-D785, SRT, "Depth")		Depth (cm)
1-2-5	CONTAINS	NUM	(99300-05, MDSN, "RMI")		RMI
1-3	CONTAINS	NUM	(130290, DCM, "Median")		Median
1-4	CONTAINS	NUM	(99300-07, MDSN, "IQR/Median")		IQR/Med.

9.2.3.2 S-Shearwave Imaging Elasticity Group (TID SM99310)

Table 9.2-17

S-Shearwave Imaging Elasticity Section

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
1		CONTAINER	(99310-01, MDSN, S-Shearwave Imaging Elasticity")		
1-1	HAS OBS CONTEXT	TEXT	(99300-02, MDSN, "Site")	A,B,C,D	
1-2	CONTAINS	CONTAINER	(111099, DCM, "Selected region")		ROI
1-2-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")	1~20	
1-2-2	CONTAINS	NUM	(99310-03, MDSN, "Pressure")	(kPa, UCUM, "kilopascal")	Pressure (kPa)
1-2-3	CONTAINS	NUM	(G-D784, SRT, "Velocity")	(m/s, UCUM, "m/s")	Velocity (m/s)
1-2-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	(R-00317, SRT, "Mean") (R-10047, SRT, "Standard Deviation") (R-404FB, SRT, "Minimum") (G-A437, SRT, "Maximum")	Mean, SD, Min, Max

1-2-4	CONTAINS	NUM	(M-02550, SRT, "Diameter")		Diameter
1-2-5	CONTAINS	NUM	(99300-05, MDSN, "RMI")		RMI
1-3	CONTAINS	NUM	(R-00317, SRT, "Mean")		Mean
1-4	CONTAINS	NUM	(99300-06, MDSN, "IQR")		IQR
1-5	CONTAINS	NUM	(130290, DCM, "Median")		Median
1-6	CONTAINS	NUM	(99300-07, MDSN, "IQR/Median")		IQR/Med.

9.2.3.3 S-Shearwave Imaging Elasticity Ratio Group (TID SM99320)

Table 9.2-18

S-Shearwave Imaging Elasticity Ratio Section

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
1		CONTAINER	(99310-02, MDSN, S-Shearwave Imaging Elasticity Ratio")		
1-1	HAS OBS CONTEXT	TEXT	(99300-02, MDSN, "Site")	A,B,C,D	
1-2	CONTAINS	CONTAINER	(111099, DCM, "Selected region")		ROI
1-2-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")	1~20, 1'~20'	
1-2-2	CONTAINS	NUM	(99310-03, MDSN, "Pressure")	(kPa, UCUM, "kilopascal")	Pressure (kPa)
1-2-3	CONTAINS	NUM	(G-D784, SRT, "Velocity")	(m/s, UCUM, "m/s")	Velocity (m/s)
1-2-3-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	(R-00317, SRT, "Mean") (R-10047, SRT, "Standard Deviation") (R-404FB, SRT, "Minimum") (G-A437, SRT, "Maximum")	Mean, SD, Min, Max
1-2-4	CONTAINS	NUM	(M-02550, SRT, "Diameter")		Diameter
1-2-5	CONTAINS	NUM	(99300-05, MDSN, "RMI")		RMI
1-3	CONTAINS	NUM	(99310-04, MDSN, "Ratio(kPa)")		Ratio (kPa)
1-4	CONTAINS	NUM	(99310-05, MDSN, "Ratio(m/s)")		Ratio (m/s)

9.3 ADULT ECHOCARDIOGRAPHY STRUCTURED REPORT TEMPLATE

9.3.1 Adult Echocardiography Ultrasound Report Templates(TID 5200)

Table 9.3-1

Adult Echocardiography Ultrasound Procedure Report Tempalte

No	Rel With Parent	VT	Concept Name	Comments
1		CONTAINER	EV (125200, DCM, "Adult Echocardiography Procedure Report")	
2	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants	
3	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context	
4	CONTAINS	INCLUDE	DTID (5201) Echocardiography Patient Characteristics	
5	CONTAINS	CONTAINER	(111028, DCM, "Image Library")	
6	CONTAINS	IMAGE	No purpose of reference	
7	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-32600, SRT, "Left Ventricle")
				\$MeasType = DCID (12200) Echocardiography Left Ventricle
8	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-32500, SRT, "Right Ventricle")
				\$MeasType = DCID (12204) Echocardiography Right Ventricle
9	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-32300, SRT, "Left Atrium")
				\$MeasType = DCID (12205) Echocardiography Left Atrium
10	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-32200, SRT, "Right Atrium")
				\$MeasType = DCID (12206) Echocardiography Right Atrium
11	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-35400, SRT, "Aortic Valve")
				\$MeasType = DCID (12211) Echocardiography Aortic

				Valve
12	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-35300, SRT, "Mitral Valve")
				\$MeasType = DCID (12207) Echocardiography Mitral Valve
13	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-35200, SRT, "Pulmonic Valve")
				\$MeasType = DCID (12209) Echocardiography Pulmonic Valve
14	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-35100, SRT, "Tricuspid Valve")
				\$MeasType = DCID (12208) Echocardiography Tricuspid Valve
15	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-42000, SRT, "Aorta")
				\$MeasType= DCID (12212) Echocardiography Aorta
16	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-44000, SRT, "Pulmonary artery")
				\$MeasType DCID (12210) = Echocardiography Pulmonary Artery
17	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-48600, SRT, "Vena Cava")
				\$MeasType = DCID (12215) Echocardiography Vena Cavae
18	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (T-48581, SRT, "Pulmonary Venous Structure")
				\$MeasType = DCID (12214) Echocardiography Pulmonary Veins
19	CONTAINS	INCLUDE	DTID (5202) Echo Section	\$SectionSubject = EV (P5-30031, SRT, "Cardiac Shunt Study")
				\$MeasType = DCID (12217) Echocardiography Cardiac Shunt
20	CONTAINS	INCLUDE	DTID (SM99210) Adult Echo User Creation Group Section	Ref. Section 9.3.1.1

9.3.1.1 Adult Echo User Creation Group Section (TID SM99210)

Table 9.3-2

User Creation Group Section in Adult Echo SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
C-20	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Group Name")			*Creation ID: Randomly generated 7-digit unique ID
C-20-1	CONTAINS	NUM	(99900-Creation ID, MDSN, "User Creation Item Name")			
C-20-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.3.2 Cardiac Measurement and Calculation used in Adult Echocardiography SR

- Label – Label of measurement or calculation used in Cardiac Calc. package for the Ultrasound System
- FSite – Finding Site
- Concept Name – (CV, CSD, "Code Meaning")
- Modifiers – Additional codes and Modifiers used

**Table 9.3-3
Cardiac Measurement and Calculation**

Group	Label	Concept Name	FSite	Modifiers
LV (2D)	IVSd	(18154-5, LN, "Interventricular Septum Diastolic Thickness")	(T-32600, SRT, "Left Ventricle")	Image Mode=SRT\G-03A2\2D mode
	LVIDd	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")		
	LVPWd	(18152-9, LN, "Left Ventricle Posterior Wall Diastolic Thickness")		
	IVSs	(18158-6, LN, "Interventricular Septum Systolic Thickness")		
	LVIDs	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")		
	LVPWs	(18156-0, LN, "Left Ventricle Posterior Wall		

		Systolic Thickness")		
	IVS % Thick	(18054-7, LN, "Interventricular Septum % Thickening")		
	LVPW % Thick	(18053-9, LN, "Left Ventricle Posterior Wall % Thickening")		
	IVSd/LVPWd	(18155-2, LN, "Interventricular Septum to Posterior Wall Thickness Ratio")		
	IVSs/LVPWs	(18155-2, LN, "Interventricular Septum to Posterior Wall Thickness Ratio")		
	RWT	(99104-09, MDSN, "Relative Wall Thickness")		
	LV % FS	(18051-3, LN, "Left Ventricular Fractional Shortening")		
	LV EDV	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
	LV ESV	(18148-7, LN, "Left Ventricular End Systolic Volume")		
	LV SV	(F-32120, SRT, "Stroke Volume")		
	LV SI	(F-00078, SRT, "Stroke Index")		
	LV CO	(F-32100, SRT, "Cardiac Output")		
	LV CI	(F-32110, SRT, "Cardiac Index")		
	LV EF	(18043-0, LN, "Left Ventricular Ejection Fraction")		
	LV Mass(C)	(18087-7, LN, "Left Ventricle Mass")		
	LV MI(C)	(99104-01, MDSN, "Left Ventricular Mass Index")		
LV (M)	IVSd	(18154-5, LN, "Interventricular Septum Diastolic Thickness")	(T-32600, SRT, "Left Ventricle")	Image Mode=SRT\G-0394\M mode
	LVIDd	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")		
	LVPWd	(18152-9, LN, "Left Ventricle Posterior Wall Diastolic Thickness")		
	IVSs	(18158-6, LN, "Interventricular Septum Systolic Thickness")		
	LVIDs	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")		

LVPWs	(18156-0, LN, "Left Ventricle Posterior Wall Systolic Thickness")		
MAPSE	(99104-10, MDSN, "Mitral Annular Plane Systolic Excursion")		
IVS % Thick (M)	(18054-7, LN, "Interventricular Septum % Thickening")		
LVPW % Thick (M)	(18053-9, LN, "Left Ventricle Posterior Wall % Thickening")		
IVSd/LVPWd (M)	(18155-2, LN, "Interventricular Septum to Posterior Wall Thickness Ratio")		
IVSs/LVPWs (M)	(18155-2, LN, "Interventricular Septum to Posterior Wall Thickness Ratio")		
RWT	(99104-09, MDSN, "Relative Wall Thickness")		
LV % FS (M)	(18051-3, LN, "Left Ventricular Fractional Shortening")		
LV EDV (M)	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
LV ESV (M)	(18148-7, LN, "Left Ventricular End Systolic Volume")		
LV SV (M)	(F-32120, SRT, "Stroke Volume")		
LV SI (M)	(F-00078, SRT, "Stroke Index")		
LV CO (M)	(F-32100, SRT, "Cardiac Output")		
LV CI (M)	(F-32110, SRT, "Cardiac Index")		
LV EF (M)	(18043-0, LN, "Left Ventricular Ejection Fraction")		
LV Mass(C)	(18087-7, LN, "Left Ventricle Mass")		
LV MI(C)	(99104-01, MDSN, "Left Ventricular Mass Index")		
LVET	(122211, DCM, "Left Ventricular ejection time")		
LVPEP	(79989-0, LN, "Left ventricular pre-ejection period")		
LVPEP/ET (M)	(59088-5, LN, "Pre-Ejection Period/Ejection Time Ratio")		
Vcf	(99104-02, MDSN, "Velocity Circumferential Fiber Shortening")		

LV Vol. (Simpson)	LVLd A4C	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")	(T-32600, SRT, "Left Ventricle")	Image Mode=SRT\G-03A2\2D mode (A2C) Image View=SRT\G-A19B\Apical two chamber (A4C) Image View=SRT\G-A19C\Apical four chamber (Simpson) Measurement Method =DCM\125208\Method of Disks, Single Plane (Simpson BP) Measurement Method =DCM\125207\Method of Disks, Biplane
	LVAd A4C	(G-0375, SRT, "Left Ventricular Diastolic Area")		
	LVEDV A4C	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
	LVEDV Index A4C	(99104-15, MDSN, "Left Ventricular End Diastolic Volume Index")		
	LVLs A4C	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")		
	LVAs A4C	(G-0374, SRT, "Left Ventricular Systolic Area")		
	LVESV A4C	(18148-7, LN, "Left Ventricular End Systolic Volume")		
	LVESV Index A4C	(99104-16, MDSN, "Left Ventricular End Systolic Volume Index")		
	LV SV A4C	(F-32120, SRT, "Stroke Volume")		
	LV CO A4C	(F-32100, SRT, "Cardiac Output")		
	LV EF A4C	(18043-0, LN, "Left Ventricular Ejection Fraction")		
	LV SI A4C	(F-00078, SRT, "Stroke Index")		
	LV CI A4C	(F-32110, SRT, "Cardiac Index")		
	LVLd A2C	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")		
	LVAd A2C	(G-0375, SRT, "Left Ventricular Diastolic Area")		
	LVEDV A2C	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
	LVEDV Index A2C	(99104-15, MDSN, "Left Ventricular End Diastolic Volume Index")		
	LVLs A2C	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")		
	LVAs A2C	(G-0374, SRT, "Left Ventricular Systolic Area")		
	LVESV A2C	(18148-7, LN, "Left Ventricular End Systolic Volume")		
	LVESV Index A2C	(99104-16, MDSN, "Left Ventricular End Systolic Volume Index")		
LV SV A2C	(F-32120, SRT, "Stroke Volume")			

	LV CO A2C	(F-32100, SRT, "Cardiac Output")		
	LV EF A2C	(18043-0, LN, "Left Ventricular Ejection Fraction")		
	LV SI A2C	(F-00078, SRT, "Stroke Index")		
	LV CI A2C	(F-32110, SRT, "Cardiac Index")		
	LVEDV BP	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
	LVEDV Index BP	(99104-15, MDSN, "Left Ventricular End Diastolic Volume Index")		
	LVESV BP	(18148-7, LN, "Left Ventricular End Systolic Volume")		
	LVESV Index BP	(99104-16, MDSN, "Left Ventricular End Systolic Volume Index")		
	LV SV BP	(F-32120, SRT, "Stroke Volume")		
	LV CO BP	(F-32100, SRT, "Cardiac Output")		
	LV EF BP	(18043-0, LN, "Left Ventricular Ejection Fraction")		
	LV SI BP	(F-00078, SRT, "Stroke Index")		
	LV CI BP	(F-32110, SRT, "Cardiac Index")		
LV Vol.(A/L)	LVLd A4C	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")	(T-32600, SRT, "Left Ventricle")	Image Mode=SRT\G-03A2\2D mode
	LVA d A4C	(G-0375, SRT, "Left Ventricular Diastolic Area")		(A2C)
	LVEDV A4C AL	(18026-5, LN, "Left Ventricular End Diastolic Volume")		Image View=SRT\G-A19B\Apical two chamber
	LVEDV Index A4C AL	(99104-15, MDSN, "Left Ventricular End Diastolic Volume Index")		(A4C)
	LVLs A4C	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")		Image View=SRT\G-A19C\Apical four chamber
	LVA s A4C	(G-0374, SRT, "Left Ventricular Systolic Area")		(A/L)
	LVESV A4C AL	(18148-7, LN, "Left Ventricular End Systolic Volume")		Measurement Method =DCM\125205\Area-Length Single Plane
	LVESV Index A4C AL	(99104-16, MDSN, "Left Ventricular End Systolic Volume Index")		
	LV SV A4C AL	(F-32120, SRT, "Stroke Volume")		
	LV CO A4C AL	(F-32100, SRT, "Cardiac Output")		

	LV EF A4C AL	(18043-0, LN, "Left Ventricular Ejection Fraction")		
	LV SI A4C AL	(F-00078, SRT, "Stroke Index")		
	LV CI A4C AL	(F-32110, SRT, "Cardiac Index")		
	LVLd A2C	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")		
	LVAd A2C	(G-0375, SRT, "Left Ventricular Diastolic Area")		
	LVEDV A2C AL	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
	LVEDV Index A2C AL	(99104-15, MDSN, "Left Ventricular End Diastolic Volume Index")		
	LVLs A2C	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")		
	LVAs A2C	(G-0374, SRT, "Left Ventricular Systolic Area")		
	LVESV A2C AL	(18148-7, LN, "Left Ventricular End Systolic Volume")		
	LVESV Index A2C AL	(99104-16, MDSN, "Left Ventricular End Systolic Volume Index")		
	LV SV A2C AL	(F-32120, SRT, "Stroke Volume")		
	LV CO A2C AL	(F-32100, SRT, "Cardiac Output")		
	LV EF A2C AL	(18043-0, LN, "Left Ventricular Ejection Fraction")		
	LV SI A2C AL	(F-00078, SRT, "Stroke Index")		
	LV CI A2C AL	(F-32110, SRT, "Cardiac Index")		
LV Vol. (Bullet)	LVAd SAX MV	(G-0375, SRT, "Left Ventricular Diastolic Area")	(T-32600, SRT, "Left Ventricle")	Image Mode=SRT\G-03A2\2D mode (Bullet) Measurement Method =DCM\125228\Bullet Method
	LVAs SAX MV	(G-0374, SRT, "Left Ventricular Systolic Area")		
	LVLd Apical	(18077-8, LN, "Left Ventricle diastolic major axis")		
	LVLs Apical	(18076-0, LN, "Left Ventricle systolic major axis")		
	LVEDV Bullet	(18026-5, LN, "Left Ventricular End Diastolic Volume")		
	LVESV Bullet	(18148-7, LN, "Left Ventricular End Systolic Volume")		
	LV SV Bullet	(F-32120, SRT, "Stroke Volume")		
	LV SI Bullet	(F-00078, SRT, "Stroke Index")		

	LV CO Bullet	(F-32100, SRT, "Cardiac Output")		
	LV CI Bullet	(F-32110, SRT, "Cardiac Index")		
	LV EF Bullet	(18043-0, LN, "Left Ventricular Ejection Fraction")		
LV Mass	LVA _d SAX PM Epi	(G-0379, SRT, "Left Ventricle Epicardial Diastolic Area, psax pap view")	(T-32600, SRT, "Left Ventricle")	Image Mode=SRT\G-03A2\2D mode (AL) Measurement Method =DCM\125205\Area-Length Single Plane (TE) Measurement Method =DCM\125222\Left Ventricle Mass by Truncated Ellipse
	LVA _d SAX PM	(99102-01, MDSN, "Left Ventricle Epicardial Diastolic Area")		
	LVL _d apical	(18077-8, LN, "Left Ventricle diastolic major axis")		
	LV Myo Thick	(99104-03, MDSN, "Myocardial Thickness")		
	LV Mass AL	(18087-7, LN, "Left Ventricle Mass")		
	LV MI AL	(99104-01, MDSN, "Left Ventricular Mass Index")		
	LV TE a	(G-0377, SRT, "Left Ventricle Semi-major Axis Diastolic Dimension")		
	LV TE d	(G-0378, SRT, "Left Ventricle Truncated Semi-major Axis Diastolic Dimension")		
	LV Mass TE	(18087-7, LN, "Left Ventricle Mass")		
	LV MI TE	(99104-01, MDSN, "Left Ventricular Mass Index")		
RV (2D)	RVA _w _d	(18153-7, LN, "Right Ventricular Anterior Wall Diastolic Thickness")	(T-32500, SRT, "Right Ventricle")	Image Mode=SRT\G-03A2\2D mode
	RVID _d	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")		
	RVA _d	(99105-01, MDSN, "Right Ventricular Diastolic Area")		
	RVA _w _s	(18157-8, LN, "Right Ventricular Anterior Wall Systolic Thickness")		
	RVID _s	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")		
	RVA _s	(99105-02, MDSN, "Right Ventricular Systolic Area")		
	RV Major	(99105-03, MDSN, "Right Ventricular Major Diameter")		

	RV Minor	(99105-04, MDSN, "Right Ventricular Minor Diameter")		
RV (M)	RVAWd	(18153-7, LN, "Right Ventricular Anterior Wall Diastolic Thickness")	(T-32500, SRT, "Right Ventricle")	Image Mode=SRT\G-0394\M mode
	RVIDd	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")		
	RVAWs	(18157-8, LN, "Right Ventricular Anterior Wall Systolic Thickness")		
	RVIDs	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")		
	TAPSE	(99105-16, MDSN, "Tricuspid Annular Plane Systolic Excursion")		
	RVPEP	(20280-4, LN, "Pressure Half-Time")		
	RVET	(99105-05, MDSN, "Ejection Time")		
	RVPEP/ET(M)	(99105-06, MDSN, "Ratio of Right Ventricle Pressure Half-Time to Ejection Time")		
RV Vol. (Simpson)	RVLd A4C	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")	(T-32500, SRT, "Right Ventricle")	Image Mode=SRT\G-03A2\2D mode
	RVAd A4C	(99105-01, MDSN, "Right Ventricular Diastolic Area")		(A2C)
	RVEDV A4C	(8822-9, LN, "Right Ventricular ED Volume")		Image View=SRT\G-A19B\Apical two chamber
	RVEDV Index A4C	(99105-22, MDSN, "Right Ventricular ED Volume Index")		(A4C)
	RVLs A4C	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")		Image View=SRT\G-A19C\Apical four chamber
	RVAs A4C	(99105-02, MDSN, "Right Ventricular Systolic Area")		
	RVESV A4C	(8824-5, LN, "Right Ventricular ES Volume")		
	RVESV Index A4C	(99105-23, MDSN, "Right Ventricular ES Volume Index")		(Simpson)
	RV SV A4C	(F-32120, SRT, "Stroke Volume")		Measurement Method =DCM\125208\Method of Disks, Single Plane
	RV CO A4C	(F-32100, SRT, "Cardiac Output")		(Simpson BP)
	RV EF A4C	(99105-24, MDSN, "Right Ventricular Ejection Fraction")		Measurement Method
	RV SI A4C	(F-00078, SRT, "Stroke Index")		

	RV CI A4C	(F-32110, SRT, "Cardiac Index")		=DCM\125207Metho d of Disks, Biplane
	RVLd A2C	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")		
	RVAd A2C	(99105-01, MDSN, "Right Ventricular Diastolic Area")		
	RVEDV A2C	(8822-9, LN, "Right Ventricular ED Volume")		
	RVEDV Index A2C	(99105-22, MDSN, "Right Ventricular ED Volume Index")		
	RVLs A2C	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")		
	RVAs A2C	(99105-02, MDSN, "Right Ventricular Systolic Area")		
	RVESV A2C	(8824-5, LN, "Right Ventricular ES Volume")		
	RVESV Index A2C	(99105-23, MDSN, "Right Ventricular ES Volume Index")		
	RV SV A2C	(F-32120, SRT, "Stroke Volume")		
	RV CO A2C	(F-32100, SRT, "Cardiac Output")		
	RV EF A2C	(99105-24, MDSN, "Right Ventricular Ejection Fraction")		
	RV SI A2C	(F-00078, SRT, "Stroke Index")		
	RV CI A2C	(F-32110, SRT, "Cardiac Index")		
	RVEDV BP	(8822-9, LN, "Right Ventricular ED Volume")		
	RVEDV Index BP	(99105-22, MDSN, "Right Ventricular ED Volume Index")		
	RVESV BP	(8824-5, LN, "Right Ventricular ES Volume")		
	RVESV Index BP	(99105-23, MDSN, "Right Ventricular ES Volume Index")		
	RV SV BP	(F-32120, SRT, "Stroke Volume")		
	RV CO BP	(F-32100, SRT, "Cardiac Output")		
	RV EF BP	(99105-24, MDSN, "Right Ventricular Ejection Fraction")		
	RV SI BP	(F-00078, SRT, "Stroke Index")		
	RV CI BP	(F-32110, SRT, "Cardiac Index")		
RV Vol. (A/L)	RVLd A4C	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")	(T-32500, SRT, "Right Ventricle")	Image Mode=SRT\G-03A2\2D mode

	RVAd A4C	(99105-01, MDSN, "Right Ventricular Diastolic Area")		(A2C)
	RVEDV A4C AL	(8822-9, LN, "Right Ventricular ED Volume")		Image View=SRT\G-A19B\Apical two chamber
	RVEDV Index A4C AL	(99105-22, MDSN, "Right Ventricular ED Volume Index")		(A4C)
	RVLs A4C	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")		Image View=SRT\G-A19C\Apical four chamber
	RVAs A4C	(99105-02, MDSN, "Right Ventricular Systolic Area")		
	RVESV A4C AL	(8824-5, LN, "Right Ventricular ES Volume")		(A/L)
	RVESV Index A4C AL	(99105-23, MDSN, "Right Ventricular ES Volume Index")		Measurement Method =DCM\125205\Area-Length Single Plane
	RV SV A4C AL	(F-32120, SRT, "Stroke Volume")		
	RV CO A4C AL	(F-32100, SRT, "Cardiac Output")		
	RV EF A4C AL	(99105-24, MDSN, "Right Ventricular Ejection Fraction")		
	RV SI A4C AL	(F-00078, SRT, "Stroke Index")		
	RV CI A4C AL	(F-32110, SRT, "Cardiac Index")		
	RVLd A2C	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")		
	RVAd A2C	(99105-01, MDSN, "Right Ventricular Diastolic Area")		
	RVEDV A2C AL	(8822-9, LN, "Right Ventricular ED Volume")		
	RVEDV Index A2C AL	(99105-22, MDSN, "Right Ventricular ED Volume Index")		
	RVLs A2C	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")		
	RVAs A2C	(99105-02, MDSN, "Right Ventricular Systolic Area")		
	RVESV A2C AL	(8824-5, LN, "Right Ventricular ES Volume")		
	RVESV Index	(99105-23, MDSN, "Right Ventricular ES Volume		

	A2C AL	Index")		
	RV SV A2C AL	(F-32120, SRT, "Stroke Volume")		
	RV CO A2C AL	(F-32100, SRT, "Cardiac Output")		
	RV EF A2C AL	(99105-24, MDSN, "Right Ventricular Ejection Fraction")		
	RV SI A2C AL	(F-00078, SRT, "Stroke Index")		
	RV CI A2C AL	(F-32110, SRT, "Cardiac Index")		
	LA Diam(2D)	(29469-4, LN, "Left Atrium Antero-posterior Systolic Dimension")		
	LA/Ao(2D)	(17985-3, LN, "Left Atrium to Aortic Root Ratio")		
	LA Diam(M)	(29469-4, LN, "Left Atrium Antero-posterior Systolic Dimension")		
	LA/Ao(M)	(17985-3, LN, "Left Atrium to Aortic Root Ratio")		
	LA Major	(99106-01, MDSN, "Left Atrium Major Diameter")		
	LA Minor	(99106-02, MDSN, "Left Atrium Minor Diameter")		
	LA Area	(17977-0, LN, "Left Atrium Systolic Area")		
	LA Volume(2D)	(G-0383, SRT, "Left Atrium Systolic Volume")		
	LA Volume Index(2D)	(99106-07, MDSN, "Left Atrium Volume Index")		
	LA Volume(M)	(G-0383, SRT, "Left Atrium Systolic Volume")		
	LA Volume Index(M)	(99106-07, MDSN, "Left Atrium Volume Index")		
	LAA d A2C	(99106-03, MDSN, "Left Atrium Diastolic Area")		
	LAA s A2C	(17977-0, LN, "Left Atrium Systolic Area")		
	LAA d A4C	(99106-03, MDSN, "Left Atrium Diastolic Area")		
	LAA s A4C	(17977-0, LN, "Left Atrium Systolic Area")		
	LAEDV BP AL	(122407, DCM, "Left Atrial ED Volume")		
	LAESV BP AL	(122408, DCM, "Left Atrial ES Volume")		
LA			(T-32300, SRT, "Left Atrium")	(2D) Image Mode=SRT\G-03A2\2D mode (M) Image Mode=SRT\G-0394\1M mode
	LALd A4C	(99106-08, MDSN, "Left Atrium Diastolic Length")		
	LAA d A4C	(99106-03, MDSN, "Left Atrium Diastolic Area")		
	LAEDV A4C	(122407, DCM, "Left Atrial ED Volume")		
	LAEDV Index A4C	(99106-10, MDSN, "Left Atrial ED Volume Index")		
	LALs A4C	(99106-09, MDSN, "Left Atrium Systolic Length")		
LA Vol. (Simpson)			(T-32300, SRT, "Left Atrium")	Image Mode =SRT\G-03A2\2D mode (A2C) Image View=SRT\G-A19B\Apical two chamber

	LAAs A4C	(17977-0, LN, "Left Atrium Systolic Area")		(A4C)
	LAESV A4C	(122408, DCM, "Left Atrial ES Volume")		Image View=SRT\G-
	LAESV Index A4C	(99106-11, MDSN, "Left Atrial ES Volume Index")		A19C\Apical four chamber
	LALd A2C	(99106-08, MDSN, "Left Atrium Diastolic Length")		(Simpson)
	LAAAd A2C	(99106-03, MDSN, "Left Atrium Diastolic Area")		Measurement Method
	LAEDV A2C	(122407, DCM, "Left Atrial ED Volume")		=DCM\125208\Metho
	LAEDV Index A2C	(99106-10, MDSN, "Left Atrial ED Volume Index")		d of Disks, Single Plane
	LALs A2C	(99106-09, MDSN, "Left Atrium Systolic Length")		(Simpson BP)
	LAAs A2C	(17977-0, LN, "Left Atrium Systolic Area")		Measurement Method
	LAESV A2C	(122408, DCM, "Left Atrial ES Volume")		=DCM\125207\Metho
	LAESV Index A2C	(99106-11, MDSN, "Left Atrial ES Volume Index")		d of Disks, Biplane
	LAEDV BP	(122407, DCM, "Left Atrial ED Volume")		
	LAEDV Index BP	(99106-10, MDSN, "Left Atrial ED Volume Index")		
	LAESV BP	(122408, DCM, "Left Atrial ES Volume")		
	LAESV Index BP	(99106-11, MDSN, "Left Atrial ES Volume Index")		
LA Vol.(A/L)	LALd A4C	(99106-08, MDSN, "Left Atrium Diastolic Length")	(T-32300, SRT, "Left Atrium")	Image Mode =SRT\G-
	LAAAd A4C	(99106-03, MDSN, "Left Atrium Diastolic Area")		03A2\2D mode
	LAEDV A4C AL	(122407, DCM, "Left Atrial ED Volume")		(A2C)
	LAEDV Index A4C AL	(99106-10, MDSN, "Left Atrial ED Volume Index")		Image View=SRT\G-
	LALs A4C	(99106-09, MDSN, "Left Atrium Systolic Length")		A19B\Apical two chamber
	LAAs A4C	(17977-0, LN, "Left Atrium Systolic Area")		(A4C)
	LAESV A4C AL	(122408, DCM, "Left Atrial ES Volume")		Image View=SRT\G-
	LAESV Index A4C AL	(99106-11, MDSN, "Left Atrial ES Volume Index")		A19C\Apical four chamber
	LALd A2C	(99106-08, MDSN, "Left Atrium Diastolic		(A/L)
			Measurement Method	

		Length")		=DCM\125205\Area- Length Single Plane (A/L BP) Measurement Method =DCM\125204\Area- Length Biplane
	LAAAd A2C	(99106-03, MDSN, "Left Atrium Diastolic Area")		
	LAEDV A2C AL	(122407, DCM, "Left Atrial ED Volume")		
	LAEDV Index A2C AL	(99106-10, MDSN, "Left Atrial ED Volume Index")		
	LALs A2C	(99106-09, MDSN, "Left Atrium Systolic Length")		
	LAAAs A2C	(17977-0, LN, "Left Atrium Systolic Area")		
	LAESV A2C AL	(122408, DCM, "Left Atrial ES Volume")		
	LAESV Index A2C AL	(99106-11, MDSN, "Left Atrial ES Volume Index")		
	LAEDV BP AL	(122407, DCM, "Left Atrial ED Volume")		
	LAEDV Index BP AL	(99106-10, MDSN, "Left Atrial ED Volume Index")		
	LAESV BP AL	(122408, DCM, "Left Atrial ES Volume")		
	LAESV Index BP AL	(99106-11, MDSN, "Left Atrial ES Volume Index")		
Aorta	Aorta Annulus	(79940-3, LN, "Aortic annulus diameter")	(T-42000, SRT, "Aorta")	(2D) Image Mode=SRT\G- 03A2\2D mode (M) Image Mode=SRT\G- 0394\M mode
	Ao Diam(2D)	(18015-8, LN, "Aortic Root Diameter")		
	Ao Diam(M)	(18015-8, LN, "Aortic Root Diameter")		
	Ao Arch Diam	(18011-7, LN, "Aortic Arch Diameter")		
	Asc Ao Diam	(18012-5, LN, "Ascending Aortic Diameter")		
	Desc Ao Diam	(18013-3, LN, "Descending Aortic Diameter")		
	Ao Isth Diam	(18014-1, LN, "Aortic Isthmus Diameter")		
	Ao ST Junct Diam	(99109-01, MDSN, "Aortic ST Junct Diameter")		
	Ao Sinus Diam	(99109-02, MDSN, "Aortic Sinus Diameter")		
	Ao ST/Ao	(99109-03, MDSN, "Ratio of Aortic ST Junct Diameter to Aortic Root Diameter")		
RA	RA Major	(99107-02, MDSN, "Right Atrium Major Diameter")	(T-32200, SRT, "Right Atrium")	(2D) Image Mode=SRT\G- 03A2\2D mode
	RA Minor	(99107-03, MDSN, "Right Atrium Minor Diameter")		
	RA Area	(99107-12, MDSN, "Right Atrium Area")		

	RAAd	(99107-01, MDSN, "Right Atrium Diastolic Area")		
	RAAs	(17988-7, LN, "Right Atrium Systolic Area")		
	RAEDV	(99107-04, MDSN, "Right Atrium Diastolic Volume")		
	RAESV	(99107-05, MDSN, "Right Atrium Systolic Volume")		
RA Vol. (Simpson)	RALd A4C	(99107-07, MDSN, "Right Atrium Diastolic Length")	(T-32200, SRT, "Right Atrium")	Image Mode=SRT\G-03A2\2D mode (A2C) Image View =SRT\G-A19B\Apical two chamber (A4C) Image View =SRT\G-A19C\Apical four chamber (Simpson) Measurement Method =DCM\125208\Method of Disks, Single Plane (Simpson BP) Measurement Method =DCM\125207\Method of Disks, Biplane
	RAAd A4C	(99107-01, MDSN, "Right Atrium Diastolic Area")		
	RAEDV A4C	(99107-04, MDSN, "Right Atrium Diastolic Volume")		
	RAEDV Index A4C	(99107-10, MDSN, "Right Atrial ED Volume Index")		
	RALs A4C	(99107-08, MDSN, "Right Atrium Systolic Length")		
	RAAs A4C	(17988-7, LN, "Right Atrium Systolic Area")		
	RAESV A4C	(99107-05, MDSN, "Right Atrium Systolic Volume")		
	RAESV Index A4C	(99107-11, MDSN, "Right Atrial ES Volume Index")		
	RALd A2C	(99107-07, MDSN, "Right Atrium Diastolic Length")		
	RAAd A2C	(99107-01, MDSN, "Right Atrium Diastolic Area")		
	RAEDV A2C	(99107-04, MDSN, "Right Atrium Diastolic Volume")		
	RAEDV Index A2C	(99107-10, MDSN, "Right Atrial ED Volume Index")		
	RALs A2C	(99107-08, MDSN, "Right Atrium Systolic Length")		
	RAAs A2C	(17988-7, LN, "Right Atrium Systolic Area")		
	RAESV A2C	(99107-05, MDSN, "Right Atrium Systolic Volume")		
	RAESV Index A2C	(99107-11, MDSN, "Right Atrial ES Volume Index")		
RAEDV BP	(99107-04, MDSN, "Right Atrium Diastolic			

		Volume")		
	RAEDV Index BP	(99107-10, MDSN, "Right Atrial ED Volume Index")		
	RAESV BP	(99107-05, MDSN, "Right Atrium Systolic Volume")		
	RAESV Index BP	(99107-11, MDSN, "Right Atrial ES Volume Index")		
RA Vol. (A/L)	RALd A4C	(99107-07, MDSN, "Right Atrium Diastolic Length")	(T-32200, SRT, "Right Atrium")	Image Mode =SRTG-03A2\2D mode (A2C) Image View=SRTG-A19B\Apical two chamber (A4C) Image View=SRTG-A19C\Apical four chamber (A/L) Measurement Method =DCM\125205\Area-Length Single Plane
	RAAd A4C	(99107-01, MDSN, "Right Atrium Diastolic Area")		
	RAEDV A4C AL	(99107-04, MDSN, "Right Atrium Diastolic Volume")		
	RAEDV Index A4C AL	(99107-10, MDSN, "Right Atrial ED Volume Index")		
	RALs A4C	(99107-08, MDSN, "Right Atrium Systolic Length")		
	RAAs A4C	(17988-7, LN, "Right Atrium Systolic Area")		
	RAESV A4C AL	(99107-05, MDSN, "Right Atrium Systolic Volume")		
	RAESV Index A4C AL	(99107-11, MDSN, "Right Atrial ES Volume Index")		
	RALd A2C	(99107-07, MDSN, "Right Atrium Diastolic Length")		
	RAAd A2C	(99107-01, MDSN, "Right Atrium Diastolic Area")		
	RAEDV A2C AL	(99107-04, MDSN, "Right Atrium Diastolic Volume")		
	RAEDV Index A2C AL	(99107-10, MDSN, "Right Atrial ED Volume Index")		
	RALs A2C	(99107-08, MDSN, "Right Atrium Systolic Length")		
	RAAs A2C	(17988-7, LN, "Right Atrium Systolic Area")		
	RAESV A2C AL	(99107-05, MDSN, "Right Atrium Systolic Volume")		
	RAESV Index A2C AL	(99107-11, MDSN, "Right Atrial ES Volume Index")		

LVOT	LVOT Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")	(T-32600, SRT, "Left Ventricle")	FSite= SRT\T-32650\Left Ventricle Outflow Tract
	LVOT Area	(G-038E, SRT, "Cardiovascular Orifice Area")		
	LVOT Vmax	(11726-7, LN, "Peak Velocity")		
	LVOT PGmax	(20247-3, LN, "Peak Gradient")		
	LVOT Vmean	(20352-1, LN, "Mean Velocity")		
	LVOT PGmean	(20256-4, LN, "Mean Gradient")		
	LVOT VTI	(20354-7, LN, "Velocity Time Integral")		
	LVOT SV	(F-32120, SRT, "Stroke Volume")		
	LVOT CO	(F-32100, SRT, "Cardiac Output")		
RVOT	RVOT Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")	(T-32500, SRT, "Right Ventricle")	FSite= SRT\T-32550\Right Ventricle Outflow Tract
	RVOT Area	(G-038E, SRT, "Cardiovascular Orifice Area")		
	RVOT Vmax	(11726-7, LN, "Peak Velocity")		
	RVOT PGmax	(20247-3, LN, "Peak Gradient")		
	RVOT Vmean	(20352-1, LN, "Mean Velocity")		
	RVOT PGmean	(20256-4, LN, "Mean Gradient")		
	RVOT VTI	(20354-7, LN, "Velocity Time Integral")		
	RVOT SV	(F-32120, SRT, "Stroke Volume")		
	RVOT CO	(F-32100, SRT, "Cardiac Output")		
AV	AV Cusp	(17996-0, LN, "Aortic Valve Cusp Separation")	(T-35400, SRT, "Aortic Valve")	(2D) Image Mode=SRT\G-03A2\2D mode (M) Image Mode=SRT\G-0394\M mode (Color Doppler) Image Mode=SRT\R-409E2\Doppler Color Flow (AV) FDirect=SRT\R-42047\Antegrade
	AV Cusp(M)	(17996-0, LN, "Aortic Valve Cusp Separation")		
	AV Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")		
	AV Area	(G-038E, SRT, "Cardiovascular Orifice Area")		
	AVA Planimetry	(G-038E, SRT, "Cardiovascular Orifice Area")		
	AVA Index	(99108-11, MDSN, "AVA Index")		
	AV Vmax	(11726-7, LN, "Peak Velocity")		
	AVA (Vmax)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	AV PGmax	(20247-3, LN, "Peak Gradient")		
	AV Vmean	(20352-1, LN, "Mean Velocity")		
	AV PGmean	(20256-4, LN, "Mean Gradient")		
	AV PHT	(20280-4, LN, "Pressure Half-Time")		

AV VTI	(20354-7, LN, "Velocity Time Integral")	Flow (AR) FDirect=SRT\R-42E61\Regurgitant Flow Measurement Method =DCM\125216\Proximal Isovelocity Surface Area Measurement Method =DCM\125220\Planimetry Measurement Method =DCM\125214\Continuity Equation by Peak Velocity Measurement Method =DCM\125215\Continuity Equation by Velocity Time Integral Measurement Method =DCM\125210\Area by Pressure Half-Time
AV AccT	(20168-1, LN, "Acceleration Time")	
AV Acc	(99108-01, MDSN, "Aortic Valve Flow Acceleration")	
AV DecT	(20217-6, LN, "Deceleration Time")	
AV Dec	(20216-8, LN, "Deceleration Slope")	
AV ET	(18041-4, LN, "Aortic Valve Ejection Time")	
AV AccT/ET	(G-0382, SRT, "Ratio of Aortic Valve Acceleration Time to Ejection Time")	
R-R Int	(99108-02, MDSN, "Aortic R to R Interval")	
AVA (VTI)	(G-038E, SRT, "Cardiovascular Orifice Area")	
LVOT VTI / AV VTI	(99108-12, MDSN, "LVOT to AV Velocity Time Integral Ratio")	
AR VCW	(99108-08, MDSN, "Aortic Regurgitant Vena Contracta Width")	
AR Vmax	(11726-7, LN, "Peak Velocity")	
AR PGmax	(20247-3, LN, "Peak Gradient")	
AR ed Vmax	(99108-03, MDSN, "Aortic Regurgitant End-Diastolic Velocity")	
AR ed PGmax	(99108-04, MDSN, "Aortic Regurgitant End-Diastolic Pressure Gradient")	
AR Vmean	(20352-1, LN, "Mean Velocity")	
AR PGmean	(20256-4, LN, "Mean Gradient")	
AR PHT	(20280-4, LN, "Pressure Half-Time")	
AR VTI	(20354-7, LN, "Velocity Time Integral")	
AR AccT	(20168-1, LN, "Acceleration Time")	
AR Acc	(99108-06, MDSN, "Aortic Regurgitant Flow Acceleration")	
AR DecT	(20217-6, LN, "Deceleration Time")	
AR Dec	(20216-8, LN, "Deceleration Slope")	
AR PISA Rad	(99108-07, MDSN, "Aortic Regurgitant PISA Radius")	
AR Alias Vel.	(99108-05, MDSN, "Aortic Regurgitant Aliasing Velocity")	
AR Flow Rate	(34141-2, LN, "Peak Instantaneous Flow Rate")	

	AR ERO	(G-038E, SRT, "Cardiovascular Orifice Area")		
	AR Volume	(33878-0, LN, "Volume Flow")		
	AR Fraction	(G-0390, SRT, "Regurgitant Fraction")		
	AVO	(99108-09, MDSN, "AVO")		
	AVC	(99108-10, MDSN, "AVC")		
	AR Jet Diam	(125333, DCM, "Regurgitation Jet Width")		
	AR jet ratio by dia.	(79944-5, LN, "Aortic regurgitant jet width/LVOT width %")		
	AR Jet Area	(125332, DCM, "Regurgitation Jet Area")		
	AR jet ratio by area	(79943-7, LN, "Aortic regurgitant jet area/LVOT area %")		
MV	MV D-E Excursion	(99114-02, MDSN, "Mitral Valve D-E Excursion")	(T-35300, SRT, "Mitral Valve")	(2D) Image Mode=SRT\G-03A2\2D mode
	MV D-E Slope	(99114-03, MDSN, "Mitral Valve D-E Slope")		(M) Image Mode=SRT\G-0394\M mode
	MV E-F Slope	(18040-6, LN, "Mitral Valve E-F Slope by M-Mode")		(Color Doppler) Image Mode=SRT\R-409E2\Doppler Color Flow
	MV A-C Interval	(99114-01, MDSN, "Mitral Valve A-C Interval")		(MV) FDirect=SRT\R-42047\Antegrade Flow
	MV EPSS	(18036-4, LN, "Mitral Valve EPSS, E wave")		(MR) FDirect=SRT\R-42E61\Regurgitant Flow
	MV Ann Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")		Measurement Method =DCM\125216\Proximal Isovelocity Surface Area
	MV Diam1	(G-038F, SRT, "Cardiovascular Orifice Diameter")		
	MV Diam2	(G-038F, SRT, "Cardiovascular Orifice Diameter")		
	MV Area	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MV Area (Ann Diam)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MVA Planimetry	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MV Vp	(99114-04, MDSN, "Mitral Valve Propagation Velocity")		
	MV E	(18037-2, LN, "Mitral Valve E-Wave Peak Velocity")		
MV A	(17978-8, LN, "Mitral Valve A-Wave Peak			

		Velocity")		Measurement Method =DCM\125220\Planimetry
	MV E/A	(18038-0, LN, "Mitral Valve E to A Ratio")		Measurement Method =DCM\125214\Continuity Equation by Peak Velocity
	MV E/Vp	(99114-15, MDSN, "Mitral Valve E to Propagation Velocity Ratio")		Measurement Method =DCM\125215\Continuity Equation by Velocity Time Integral
	MV Vmax	(11726-7, LN, "Peak Velocity")		Measurement Method =DCM\125210\Area by Pressure Half-Time
	MVA (Vmax)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MV PGmax	(18057-0, LN, "Mitral Valve Diastolic Peak Instantaneous Gradient")		
	MV Vmean	(20352-1, LN, "Mean Velocity")		
	MV PGmean	(20256-4, LN, "Mean Gradient")		
	MV PHT	(20280-4, LN, "Pressure Half-Time")		
	MV DecT (PHT)	(20217-6, LN, "Deceleration Time")		
	MVA (PHT)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MV VTI	(20354-7, LN, "Velocity Time Integral")		
	MVA (VTI)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MV AccT	(20168-1, LN, "Acceleration Time")		
	MV Acc	(99114-06, MDSN, "Mitral Valve Flow Acceleration")		
	MV DecT	(20217-6, LN, "Deceleration Time")		
	MV Dec	(20216-8, LN, "Deceleration Slope")		
	MV AccT/DecT	(G-0386, SRT, "Mitral Valve AT/DT Ratio")		
	MV A Dur	(G-0385, SRT, "Mitral Valve A-Wave Duration")		
	P Vein A - MV A Dur.	(99110-01, MDSN, "P Vein A Dur minus MV A Dur")		
	MV SV	(F-32120, SRT, "Stroke Volume")		
	MV SV (Ann Diam)	(F-32120, SRT, "Stroke Volume")		
	MV CO	(F-32100, SRT, "Cardiac Output")		
	MV ET	(99114-07, MDSN, "Mitral Valve Ejection Time")		
	R-R Int	(99114-09, MDSN, "Mitral Valve R to R Interval")		
	MR VCW	(99114-10, MDSN, "Mitral Regurgitant Vena Contracta Width")		
	MR Vmax	(11726-7, LN, "Peak Velocity")		
	MR PGmax	(18057-0, LN, "Mitral Valve Diastolic Peak		

		Instantaneous Gradient")		
	MR Vmean	(20352-1, LN, "Mean Velocity")		
	MR PGmean	(20256-4, LN, "Mean Gradient")		
	MR VTI	(20354-7, LN, "Velocity Time Integral")		
	MR dp/dt Interval	(99114-11, MDSN, "Mitral Regurgitant dp/dt Interval")		
	MR dp/dt	(18035-6, LN, "Mitral Regurgitation dP/dt derived from Mitral Reg. velocity")		
	MR PISA Rad	(99114-13, MDSN, "Mitral Regurgitant PISA Radius")		
	MR Alias Vel.	(99114-12, MDSN, "Mitral Regurgitant Aliasing Velocity")		
	MR Flow Rate	(34141-2, LN, "Peak Instantaneous Flow Rate")		
	MR ERO	(G-038E, SRT, "Cardiovascular Orifice Area")		
	MR Volume	(33878-0, LN, "Volume Flow")		
	MR Fraction	(G-0390, SRT, "Regurgitant Fraction")		
	MR Volume(Continuity VTI)	(80063-1, LN, "Mitral regurgitation volume (Continuity VTI)")		
	MR Jet Area	(125332, DCM, "Regurgitation Jet Area")		
	MR jet ratio by area	(99114-13, MDSN, "Mitral regurgitant jet area/LA area %")		
TV	TV D-E Excursion	(99115-09, MDSN, "Tricuspid Valve D-E Excursion")	(T-35100, SRT, "Tricuspid Valve")	(2D) Image Mode=SRT\G-03A2\2D mode (M) Image Mode=SRT\G-0394\M mode (Color Doppler) Image Mode=SRT\R-409E2\Doppler Color Flow (TV) FDirect=SRT\R-
	TV D-E Slope	(99115-10, MDSN, "Tricuspid Valve D-E Slope")		
	TV E-F Slope	(99115-11, MDSN, "Tricuspid Valve E-F Slope")		
	TV A-C Interval	(99115-08, MDSN, "Tricuspid Valve A-C Interval")		
	TV Ann Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")		
	TV Diam1	(G-038F, SRT, "Cardiovascular Orifice Diameter")		
	TV Diam2	(G-038F, SRT, "Cardiovascular Orifice Diameter")		
	TV Area	(G-038E, SRT, "Cardiovascular Orifice Area")		

	TVA Planimetry	(G-038E, SRT, "Cardiovascular Orifice Area")		42047\Antegrade Flow
	TV Peak E	(18031-5, LN, "Tricuspid Valve E Wave Peak Velocity")		(TR)
	TV Peak A	(18030-7, LN, "Tricuspid Valve A Wave Peak Velocity")		FDirect=SRT\R-42E61\Regurgitant Flow
	TV E/A	(18039-8, LN, "Tricuspid Valve E to A Ratio")		
	TV Vmax	(11726-7, LN, "Peak Velocity")		Measurement Method =DCM\125216\Proximal Isovelocity Surface Area
	TVA (Vmax)	(G-038E, SRT, "Cardiovascular Orifice Area")		Measurement Method =DCM\125220\Planimetry
	TV PGmax	(20247-3, LN, "Peak Gradient")		Measurement Method =DCM\125214\Continuity Equation by Peak Velocity
	TV Vmean	(20352-1, LN, "Mean Velocity")		Measurement Method =DCM\125215\Continuity Equation by Velocity Time Integral
	TV PGmean	(20256-4, LN, "Mean Gradient")		Measurement Method =DCM\125210\Area by Pressure Half-Time
	TV PHT	(20280-4, LN, "Pressure Half-Time")		
	TV VTI	(20354-7, LN, "Velocity Time Integral")		
	TVA (VTI)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	TV AccT	(20168-1, LN, "Acceleration Time")		
	TV Acc	(99115-01, MDSN, "Tricuspid Valve Flow Acceleration")		
	TV DecT	(20217-6, LN, "Deceleration Time")		
	TV Dec	(20216-8, LN, "Deceleration Slope")		
	TV SV	(F-32120, SRT, "Stroke Volume")		
	TV CO	(F-32100, SRT, "Cardiac Output")		
	TV A Dur	(99115-02, MDSN, "Tricuspid Valve A-Wave Duration")		
	Q to TV Open	(20296-0, LN, "Time from Q wave to Tricuspid Valve Opens")		
	R-R Int	(99115-12, MDSN, "Tricuspid Valve R to R Interval")		
	TR VCW	(99115-03, MDSN, "Tricuspid Regurgitant Vena Contracta Width")		
	TR Vmax	(11726-7, LN, "Peak Velocity")		
	TR PGmax	(20247-3, LN, "Peak Gradient")		
	TR Vmean	(20352-1, LN, "Mean Velocity")		
	TR PGmean	(20256-4, LN, "Mean Gradient")		
	TR VTI	(20354-7, LN, "Velocity Time Integral")		

	RAP	(18070-3, LN, "Right Atrium Systolic Pressure")		
	TR RVSP	(G-0380, SRT, "Right Ventricular Peak Systolic Pressure")		
	TR dp/dt Int	(99115-05, MDSN, "Tricuspid Regurgitant dp/dp Interval")		
	TR dp/dt	(18034-9, LN, "Tricuspid Regurgitation dP/dt")		
	TR PISA Rad	(99115-07, MDSN, "Tricuspid Regurgitant PISA Radius")		
	TR Alias Vel.	(99115-06, MDSN, "Tricuspid Regurgitant Aliasing Velocity")		
	TR Flow Rate	(34141-2, LN, "Peak Instantaneous Flow Rate")		
	TR ERO	(G-038E, SRT, "Cardiovascular Orifice Area")		
	TR Volume	(33878-0, LN, "Volume Flow")		
	TR Fraction	(G-0390, SRT, "Regurgitant Fraction")		
	TR Jet Area	(125332, DCM, "Regurgitation Jet Area")		
	TR jet ratio by area	(99115-12, MDSN, "Tricuspid regurgitant jet area/RA area %")		
PV	PV Ann Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")	(T-35200, SRT, "Pulmonic Valve")	(2D) Image Mode=SRT\G-03A2\2D mode
	PV Area	(G-038E, SRT, "Cardiovascular Orifice Area")		(M) Image Mode=SRT\G-0394\M mode
	PVA Planimetry	(G-038E, SRT, "Cardiovascular Orifice Area")		(Color Doppler) Image Mode=SRT\R-409E2\Doppler Color Flow
	PV Vmax	(11726-7, LN, "Peak Velocity")		(PV) FDirect=SRT\R-42047\Antegrade Flow
	PVA (Vmax)	(G-038E, SRT, "Cardiovascular Orifice Area")		(PR) FDirect=SRT\R-42E61\Regurgitant
	PV PGmax	(20247-3, LN, "Peak Gradient")		
	PV Vmean	(20352-1, LN, "Mean Velocity")		
	PV PGmean	(20256-4, LN, "Mean Gradient")		
	PV PHT	(20280-4, LN, "Pressure Half-Time")		
	PV VTI	(20354-7, LN, "Velocity Time Integral")		
	PVA (VTI)	(G-038E, SRT, "Cardiovascular Orifice Area")		
	PV AccT	(20168-1, LN, "Acceleration Time")		
	PV Acc	(99116-01, MDSN, "Pulmonic Valve Flow Acceleration")		
	PV DecT	(20217-6, LN, "Deceleration Time")		
	PV Dec	(20216-8, LN, "Deceleration Slope")		

	PV ET	(18042-2, LN, "Pulmonic Valve Ejection Time")		Flow
	PV AccT/ET	(G-0388, SRT, "Ratio of Pulmonic Valve Acceleration Time to Ejection Time")		Measurement Method =DCM\125216\Proximal Isovelocity Surface Area
	R-R Int	(99116-02, MDSN, "Pulmonic Valve R to R Interval")		Measurement Method =DCM\125220\Planimetry
	Q to PV Close	(20295-2, LN, "Time from Q wave to Pulmonic Valve Closes")		Measurement Method =DCM\125214\Continuity Equation by Peak Velocity
	MPA Vmax	(G-038A, SRT, "Main Pulmonary Artery Peak Velocity")		Measurement Method =DCM\125215\Continuity Equation by Velocity Time Integral
	PR VCW	(99116-06, MDSN, "Pulmonic Regurgitant Vena Contracta Width")		Measurement Method =DCM\125210\Area by Pressure Half-Time
	PR Vmax	(11726-7, LN, "Peak Velocity")		
	PR PGmax	(20247-3, LN, "Peak Gradient")		
	PRend Vmax	(79918-9, LN, "Pulmonic regurgitation end diastolic velocity")		
	PRend PGmax	(79934-6, LN, "Pulmonic regurgitation end diastolic peak gradient")		
	PR Vmean	(20352-1, LN, "Mean Velocity")		
	PR PGmean	(20256-4, LN, "Mean Gradient")		
	PR PHT	(20280-4, LN, "Pressure Half-Time")		
	PR AccT	(20168-1, LN, "Acceleration Time")		
	PR Acc	(99116-03, MDSN, "Pulmonic Regurgitant Flow Acceleration")		
	PR DecT	(20217-6, LN, "Deceleration Time")		
	PR Dec	(20216-8, LN, "Deceleration Slope")		
	PR VTI	(20354-7, LN, "Velocity Time Integral")		
	PR PISA Rad	(99116-04, MDSN, "Pulmonic Regurgitant PISA Radius")		
	PR Alias Vel.	(99116-05, MDSN, "Pulmonic Regurgitant Aliasing Velocity")		
	PR Flow Rate	(34141-2, LM, "Peak Instantaneous Flow Rate")		
	PR ERO	(G-038E, SRT, "Cardiovascular Orifice Area")		
	PR Volume	(33878-0, LM, "Volume Flow")		
	PR Fraction	(G-0390, SRT, "Regurgitant Fraction")		
	mPAP	(99116-09, MDSN, "Mean Pulmonary Artery")		

		Pressure")		
	dPAP	(99116-10, MDSN, "Diastolic Pulmonary Artery Pressure")		
	PR RVSP	(F-03DFE, SRT, "Right Ventricular Systolic Pressure")		
Tei Index	LV IVCT	(G-037E, SRT, "Left Ventricular Isovolumic Contraction Time")	(T-32600, SRT, "Left Ventricle")	
	LV ET	(122211, DCM, "Left Ventricular ejection time")		
	LV IVRT	(18071-1, LN, "Left Ventricular Isovolumic Relaxation Time")		
	LV MCO	(99104-04, MDSN, "Left Ventricle Total Systolic Time")		
	LV Tei Index	(SRT, G-037F, "Left Ventricular Index of Myocardial Performance")		
	RV IVCT	(99105-09, MDSN, "Right Ventricle IsoVolumic Contraction Time")	(T-32500, SRT, "Right Ventricle")	
	RV ET	(122213, DCM, "Right Ventricular ejection time")		
	RV IVRT	(99105-10, MDSN, "Right Ventricle IsoVolumic Relaxation Time")		
	RV MCO	(99105-07, MDSN, "Right Ventricle Total Systolic Time")		
	RV Tei Index	(99105-08, MDSN, "Right Ventricle Myocardial Performance Index")		
Pulm. Veins	P Vein S Vmax	(29450-4, LN, "Pulmonary Vein Systolic Peak Velocity")	(T-48581, SRT, "Pulmonary Venous Structure")	
	P Vein D Vmax	(29451-2, LN, "Pulmonary Vein Diastolic Peak Velocity")		
	P Vein S/D	(29452-0, LN, "Pulmonary Vein Systolic to Diastolic Ratio")		
	P Vein A Vmax	(29453-8, LN, "Pulmonary Vein Atrial Contraction Reversal Peak Velocity")		
	P Vein A Dur	(G-038B, SRT, "Pulmonary Vein A-Wave Duration")		
Hepatic Veins	H Vein S Vmax	(29471-0, LN, "Hepatic Vein Systolic Peak Velocity")	(T-48720, SRT, "Hepatic Vein")	

	H Vein D Vmax	(29472-8, LN, "Hepatic Vein Diastolic Peak Velocity")		
	H Vein S/D	(29473-6, LN, "Hepatic Vein Systolic to Diastolic Ratio")		
	H Vein A Vmax	(29474-4, LN, "Hepatic Vein Atrial Contraction Reversal Peak Velocity")		
	H Vein A Dur	(99112-01, MDSN, "Hepatic Vein A-Wave Duration")		
Tissue Doppler	E'	(G-037A, SRT, "Left Ventricular Peak Early Diastolic Tissue Velocity")	(T-32600, SRT, "Left Ventricle")	
	Septal E'	(99104-17, MDSN, "Left Ventricular Septal Peak Early Diastolic Tissue Velocity")		
	Lateral E'	(99104-18, MDSN, "Left Ventricular Lateral Peak Early Diastolic Tissue Velocity")		
	Avg E'	(99104-19, MDSN, "Left Ventricular Average Peak Early Diastolic Tissue Velocity")		
	A'	(G-037C, SRT, "LV Peak Diastolic Tissue Velocity During Atrial Systole")		
	Septal A'	(99104-20, MDSN, "LV Septal Peak Diastolic Tissue Velocity During Atrial Systole")		
	Lateral A'	(99104-21, MDSN, "LV Lateral Peak Diastolic Tissue Velocity During Atrial Systole")		
	S'	(G-037D, SRT, "Left Ventricular Peak Systolic Tissue Velocity")		
	Septal S'	(99104-22, MDSN, "Left Ventricular Septal Peak Systolic Tissue Velocity")		
	Lateral S'	(99104-23, MDSN, "Left Ventricular Lateral Peak Systolic Tissue Velocity")		
	MV E/E'	(G-037B, SRT, "Ratio of MV Peak Velocity to LV Peak Tissue Velocity E-Wave")		
	MV E/Septal E'	(99104-26, MDSN, "MV E to LV Septal Peak A' Ratio")		
	MV E/Lateral E'	(99104-27, MDSN, "MV E to LV Lateral Peak A' Ratio")		
	MV E/Avg E'	(99104-28, MDSN, "MV E to LV Average Peak A' Ratio")		

	E'/A'	(99104-06, MDSN, "LV Peak E' to LV Peak A' Ratio")		
	Septal E'/A'	(99104-24, MDSN, "LV Septal Peak E' to LV Peak A' Ratio")		
	Lateral E'/A'	(99104-25, MDSN, "LV Lateral Peak E' to LV Peak A' Ratio")		
	PCWP	(118433006, SCT, "Pulmonary Capillary Wedge Pressure")		
	LV AccT	(99104-07, MDSN, "Left Ventricle Acceleration Time")		
	LV DecT	(99104-08, MDSN, "Left Ventricle Deceleration Time")		
	RV Peak E'	(99105-11, MDSN, "Right Ventricle Peak Early Diastolic Tissue Velocity")	(T-32500, SRT, "Right Ventricle")	
	RV Peak A'	(99105-12, MDSN, "Right Ventricle Peak Diastolic Tissue Velocity During Atrial Systole")		
	RV Peak S'	(99105-13, MDSN, "Right Ventricle Peak Systolic Tissue Velocity")		
	TV E/E'	(99105-14, MDSN, "TV Peak E to RV Peak E' Ratio")		
	RV E'/A'	(99105-15, MDSN, "RV Peak E' to RV Peak A' Ratio")		
	RV AccT	(20168-1, LN, "Acceleration Time")		
	RV DecT	(20217-6, LN, "Deceleration Time")		
	Systemic VTI	(20354-7, LN, "Velocity Time Integral")		(T-32600, SRT, "Left Ventricle")
	Systemic SV	(F-32120, SRT, "Stroke Volume")		
	Systemic SI	(F-00078, SRT, "Stroke Index")		
	Systemic CO	(F-32100, SRT, "Cardiac Output")		
	Systemic CI	(F-32110, SRT, "Cardiac Index")		
Qp/Qs	Pulmonic VTI	(20354-7, LN, "Velocity Time Integral")	(T-32500, SRT, "Right Ventricle")	
	Pulmonic SV	(F-32120, SRT, "Stroke Volume")		
	Pulmonic SI	(F-00078, SRT, "Stroke Index")		
	Pulmonic CO	(F-32100, SRT, "Cardiac Output")		
	Pulmonic CI	(F-32110, SRT, "Cardiac Index")		
	Qp/Qs	(29462-9, LN, "Pulmonary-to-Systemic Shunt	(P5-30031, SRT,	

		Flow Ratio")	"Cardiac Shunt Study")	
Shunts	MPA Diam	(18020-8, LN, "Main Pulmonary Artery Diameter")	(T-44000, SRT, "Pulmonary artery")	
	LPA Diam	(18019-0, LN, "Left Pulmonary Artery Diameter")		
	RPA Diam	(18021-6, LN, "Right Pulmonary Artery Diameter")		
	IVC Diam, Exp	(18006-7, LN, "Inferior Vena Cava Diameter")	(T-48600, SRT, "Vena Cava")	
	IVC Diam, Insp	(18006-7, LN, "Inferior Vena Cava Diameter")		
	IVC % Change	(18050-5, LN, "Inferior Vena Cava % Collapse")		
	IVC Diam, Exp(M)	(18006-7, LN, "Inferior Vena Cava Diameter")		
	IVC Diam, Insp(M)	(18006-7, LN, "Inferior Vena Cava Diameter")		
	IVC % Change(M)	(18050-5, LN, "Inferior Vena Cava % Collapse")		
	SVC Diam, Exp	(99111-01, MDSN, "Superior Vena Cava Diameter during Expiration")		
	SVC Diam, Insp	(99111-02, MDSN, "Superior Vena Cava Diameter during Inspiration")		
	SVC % Change	(99111-03, MDSN, "Superior Vena Cava % Collapse")		
	SVC Diam, Exp(M)	(99111-01, MDSN, "Superior Vena Cava Diameter during Expiration")		
	SVC Diam, Insp(M)	(99111-02, MDSN, "Superior Vena Cava Diameter during Inspiration")		
	SVC % Change(M)	(99111-03, MDSN, "Superior Vena Cava % Collapse")		
	SVC S Vmax	(99111-04, MDSN, "Superior Vena Cava Systolic Peak Velocity")		
	SVC D Vmax	(99111-05, MDSN, "Superior Vena Cava Diastolic Peak Velocity")		
	SVC A Vmax	(99111-06, MDSN, "Superior Vena Cava Atrial Contraction Reversal Peak Velocity")		
	SVC A Dur	(99111-07, MDSN, "Superior Vena Cava A-Wave		

		Duration")		
	SVC S/D	(99111-08, MDSN, "SVC S Vmax to SVC D Vmax ratio")		
	SVC A-TV A Dur	(99111-09, MDSN, "SVC A Dur minus TV A Dur")		
	IVC S Vmax	(99111-10, MDSN, "Inferior Vena Cava Systolic Peak Velocity")		
	IVC D Vmax	(99111-11, MDSN, "Inferior Vena Cava Diastolic Peak Velocity")		
	IVC A Vmax	(99111-12, MDSN, "Inferior Vena Cava Atrial Contraction Reversal Peak Velocity")		
	IVC A Dur	(99111-13, MDSN, "Inferior Vena Cava A-Wave Duration")		
	IVC S/D	(99111-14, MDSN, "IVC S Vmax to IVC D Vmax ratio")		
	IVC A-TV A Dur	(99111-15, MDSN, "IVC A Dur minus TV A Dur")		
	PEd	(99113-01, MDSN, "Pericardial Effusion Diameter, diastole")	(P5-30031, SRT, "Cardiac Shunt Study")	
	PEs	(99113-02, MDSN, "Pericardial Effusion Diameter, systole")		

9.4 UROLOGY STRUCTURED REPORT TEMPLATE

9.4.1 Urology Ultrasound Report Templates (TID SM99400)

**Table 9.4-1
Urology Ultrasound Report Procedure Templates**

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	EV (99400, MDSN, "Urology Ultrasound Report")		
2	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context		
3	CONTAINS	INCLUDE	DTID (5001) Patient Characteristics		
4	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-0, MDSN, " WG Prostate Volume")	WG Prostate Vol.
5	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-1, MDSN, " T-Zone Volume")	T-Zone Vol.
6	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-2, MDSN, " Bladder Volume")	Bladder Vol.
7	CONTAINS	INCLUDE	DTID (SM99401) Residual Volume Group	\$GroupName = EV (99017-3, MDSN, " Residual Volume")	Residual Vol.
8	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-6, MDSN, " Right Renal Volume")	Rt. Renal Vol.
9	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-7, MDSN, " Left Renal Volume")	Lt. Renal Vol.
10	CONTAINS	INCLUDE	DTID (SM99402) PSA Measurement Group	\$GroupName = EV (99017-9, MDSN, "Prostate Specific Antigen")	PSA
11	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group	\$AnatomyGroup = EV (99017-8, MDSN, "General Urology Measurement"	General
12	CONTAINS	INCLUDE	DTID (SM99310) S-Shearwave Imaging Elasticity Group	Ref. Table 9.2-17	Urology Shearwave
13	CONTAINS	INCLUDE	DTID (SM99320) S-Shearwave Imaging Elasticity Ratio Group	Ref. Table 9.2-18	

14	CONTAINS	INCLUDE	DTID (SM99410) Urology User Creation Group Section	Ref. Section 9.4.1.7	
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9.4.1.1 Observation Context (TID 1001)

**Table 9.4-2
OBSERVATION CONTEXT IN UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
D-1	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
D-2	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician
D-3	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025 ,DCM,"Patient")	
D-4	HAS OBS CONTEXT	PNAME	(121029,DCM, "Subject Name")		Last Name, First Name
D-5	HAS OBS CONTEXT	DATE	(121031,DCM, "Subject Birth Date")		BirthDate
D-6	HAS OBS CONTEXT	CODE	(121032,DCM, "Subject Sex")	(M, DCM, "Male") (F, DCM, "Female") (U, DCM, "Unknown sex")	Gender

9.4.1.2 Patient Characteristics (TID 5001)

**Table 9.4-3
PATIENT CHARACTERISTICS IN UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
D-7	CONTAINS	CONTAINER	(121118,DCM "Patient Characteristics")		
D-7-1	CONTAINS	NUM	(8302-2, LN, "Patient Height")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	Height
D-7-2	CONTAINS	NUM	(29463-7, LN, "Patient Weight")	(kg, UCUM, "kilograms")	Weight

9.4.1.3 LHW Volume Group (TID 5016)

**Table 9.4-4
LHW VOLUME GROUP IN UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
D-8		CONTAINER	\$GroupName		
D-8-1	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Volume	Vol.
D-8-2	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Length	L
				\$Derivation = DCID (3627) Measurement Type	
D-8-3	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Width	W
				\$Derivation = DCID (3627) Measurement Type	
D-8-4	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Height	H
				\$Derivation = DCID (3627) Measurement Type	

9.4.1.4 Residual Volume Group (TID SM99401)

**Table 9.4-5
Residual Volume Group in UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
D-9		CONTAINER	\$GroupName		
D-9-1	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-4, MDSN, "Pre Void Volume")	Pre
D-9-2	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-5, MDSN, "Post Void Volume")	Post
D-9-3	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99017-12, MDSN, "Void Volume")	Void

9.4.1.5 PSA Measurement Group (TID SM99402)

**Table 9.4-6
PSA Measurement Group in UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
D-10		CONTAINER	\$GroupName		
D-10-1	CONTAINS	NUM	(99017-10, MDSN, "Predicted PSA by WG")		PREDPSA
D-10-2	CONTAINS	NUM	(99017-11, MDSN, "Predicted PSA by T-Zone")		TZPSA

9.4.1.6 Vascular Measurement Group (TID 5104)

**Table 9.4-7
Vascular Measurement Group in UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
D-11		CONTAINER	\$AnatomyGroup	\$AnatomyGroup=MDSN\99017-8\General Urology Measurement	General
D-11-1	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = DCID (12119) Vascular Ultrasound Property	
				\$Derivation = DCID (3627) Measurement Type	

9.4.1.7 Urology User Creation Group Section (TID SM99410)

**Table 9.4-8
User Creation Group in UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
D-12	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Group Name")			*Creation ID: Randomly generated 7-digit unique ID
D-12-1	CONTAINS	NUM	(99900-Creation ID, MDSN, "User Creation Item Name")			

D-12-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		
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9.4.2 Urology Measurement and Calculation used in Urology SR

**Table 9.4-9
Urology Measurement and Calculation Items**

RS85 Label	DICOM SR Concept Name (CSD\CVCM)
WG Prostate L	SRT\G-A22A\Length
WG Prostate H	DCM\121207\Height
WG Prostate W	SRT\G-A220\Width
Vol.	SRT\G-D705\Volume
T-Zone L	SRT\G-A22A\Length
T-Zone H	DCM\121207\Height
T-Zone W	SRT\G-A220\Width
Vol.	SRT\G-D705\Volume
Bladder L	SRT\G-A22A\Length
Bladder H	DCM\121207\Height
Bladder W	SRT\G-A220\Width
Vol.	SRT\G-D705\Volume
Pre L	SRT\G-A22A\Length
Pre H	DCM\121207\Height
Pre W	SRT\G-A220\Width
Pre Vol.	SRT\G-D705\Volume
Post L	SRT\G-A22A\Length
Post H	DCM\121207\Height
Post W	SRT\G-A220\Width
Post Vol.	SRT\G-D705\Volume
Void Vol.	SRT\G-D705\Volume
Rt. Renal L	SRT\G-A22A\Length
Rt. Renal H	DCM\121207\Height
Rt. Renal W	SRT\G-A220\Width
Vol.	SRT\G-D705\Volume
Rt. Renal Pelvis	MDSN\99005-13\Right Pelvis
Lt. Renal L	SRT\G-A22A\Length

Lt. Renal H	DCM\121207\Height
Lt. Renal W	SRT\G-A220\Width
Vol.	SRT\G-D705\Volume
Lt. Renal Pelvis	MDSN\99005-14\Left Pelvis
PSA	MDSN\99017-9\Prostate Specific Antigen
PREDPSA	MDSN\99017-10\Predicted PSA by WG
TZPSA	MDSN\99017-11\Predicted PSA by T-Zone
General	MDSN\99017-8\General Urology Measurement
PSV	LN\11726-7\Peak Systolic Velocity
EDV	LN\11653-3\End Diastolic Velocity
TAPV	LN\11692-1\Time averaged peak velocity
TAMV	LN\20352-1\Time averaged mean velocity
PGmax	LN\20247-3\Peak Gradient
PGmean	LN\20256-4\Mean Gradient
S/D	LN\12144-2\Systolic to Diastolic Velocity Ratio
D/S	MDSN\99200-01\Diastolic to Systolic Velocity Ratio
RI	LN\12023-8\Resistivity Index
PI	LN\12008-9\Pulsatility Index
%StA	SRT\R-101BA\Lumen Area Stenosis
%StA Outer Area	SRT\G-0366\Vessel lumen cross-sectional area
%StA Inner Area	SRT\R-1025D\Vessel Intimal Cross-Sectional Area
%StD	SRT\R-101BB\Lumen Diameter Stenosis
%StD Outer Dist.	SRT\G-0364\Vessel lumen diameter
%StD Inner Dist.	SRT\R-1025C\Vessel Intimal Diameter
Vesl. Area	MDSN\99200-02\Vessel Area
Vol. Flow(A)	SRT\G-0365\Vessel outside diameter
Vesl. Dist	LN\33878-0\Volume flow
Vol. Flow(D)	LN\33878-0\Volume flow

9.5 SMALL PARTS STRUCTURED REPORT TEMPLATE

9.5.1 SmallParts Ultrasound Report Templates (TID SM99500)

**Table 9.5-1
SmallParts Ultrasound Report Procedure Templates**

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	EV (SM99500, MDSN, "SmallParts Ultrasound Report")		
2	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context		
3	CONTAINS	INCLUDE	DTID (5001) Patient Characteristics		
4	CONTAINS	INCLUDE	DTID (SM99501) Small Parts Measurement Group		
8	CONTAINS	INCLUDE	DTID (SM99501) Small Parts Measurement Group		
9	CONTAINS	INCLUDE	DTID (SM99501) Small Parts Measurement Group		

9.5.1.1 Observation Context (TID 1001)

**Table 9.5-2
OBSERVATION CONTEXT IN UROLOGY SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
E-1	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
E-2	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician
E-3	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025, DCM, "Patient")	
E-4	HAS OBS CONTEXT	PNAME	(121029, DCM, "Subject Name")		Last Name, First Name
E-5	HAS OBS CONTEXT	DATE	(121031, DCM, "Subject Birth Date")		BirthDate

E-6	HAS OBS CONTEXT	CODE	(121032,DCM, "Subject Sex")	(M, DCM, "Male") (F, DCM, "Female") (U, DCM, "Unknown sex")	Gender
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9.5.1.2 Patient Characteristics (TID 5001)

**Table 9.5-3
PATIENT CHARACTERISTICS IN SMALL PARTS SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
E-7	CONTAINS	CONTAINER	(121118,DCM "Patient Characteristics")		
E-7-1	CONTAINS	NUM	(8302-2, LN, "Patient Height")	(cm, UCUM, "centimeter") (mm, UCUM, "millimeter")	Height
E-7-2	CONTAINS	NUM	(29463-7, LN, "Patient Weight")	(kg, UCUM, "kilograms")	Weight

9.5.1.3 Small Parts Measurement Group (TID SM99501)

**Table 9.5-4
Small Parts Measurement Group in SMALL PARTS SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
E-8		CONTAINER	(121070, DCM, "Findings")		
E-8-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(T-B6000, SRT, "Thyroid")	
				(T-94000, SRT, "Testis")	
				(G-A139, SRT, "Superficial")	
E-8-2	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right") (G-A101, SRT, "Left") (G-A103, SRT, "Unilateral")	
E-8-3	CONTAINS	INCLUDE	DTID (SM99102) Mass Measurement Group		Mass
E-8-4	CONTAINS	INCLUDE	DTID (5016) LWH Volume Group	\$GroupName = EV (99100-6, MDSN, "Thyroid Volume")	Vol.
				\$GroupName = EV (99100-15,	

				MDSN, "Lobe")	
				\$GroupName = EV (99100-9, MDSN, "Testis Volume")	
				\$GroupName = EV (99100-11, MDSN, "Superficial Volume")	
E-8-5	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group	\$AnatomyGroup = EV (99100-7, MDSN, "Thyroid Flow")	Flow
				\$AnatomyGroup = EV(99100-10, MDSN, "Testis Flow")	
				\$AnatomyGroup = EV (99100- 12, MDSN, "Superficial Flow")	
E-8-6	CONTAINS	CONTAINER	(99100-16, MDSN, "Isthmus")		Isthmus
E-8-6- 1	CONTAINS	NUM	(99100-16, MDSN, "Isthmus")		
E-8-7	CONTAINS	INCLUDE	DTID (SM99310) S-Shearwave Imaging Elasticity Group	Ref. Table 9.2-17	Thyroid Shearwave
E-8-8	CONTAINS	INCLUDE	DTID (SM99320) S-Shearwave Imaging Elasticity Ratio Group	Ref. Table 9.2-18	
E-8-9	CONTAINS	INCLUDE	DTID (SM99510) Small Parts User Creation Group Section	Ref. Section 9.5.1.7	

9.5.1.4 Mass Measurement Group (TID SM99102)

Table 9.5-5
Mass Measurement Group in SMALL PARTS SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
E-8-2	CONTAINS	CONTAINER	(M-03000, SRT, "Mass")		
E-8-2-1	HAS OBS CONTEXT	TEXT	(12510, DCM, "Identifier")		"1", "2" ... "5"
E-8-2-2	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Volume	Vol.
E-8-2-3	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Length	L
				\$Derivation = DCID (3627) Measurement Type	
E-8-2-4	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Depth	D

				\$Derivation = DCID (3627) Measurement Type	
E-8-2-5	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Width \$Derivation = DCID (3627) Measurement Type	W

9.5.1.5 LHW Volume Group (TID 5016)

**Table 9.5-6
LHW VOLUME GROUP IN SMALL PARTS SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
E-8-3		CONTAINER	\$GroupName		
E-8-3-1	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Volume	Vol.
E-8-3-2	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Length \$Derivation = DCID (3627) Measurement Type	L
E-8-3-3	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Width \$Derivation = DCID (3627) Measurement Type	W
E-8-3-4	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Height \$Derivation = DCID (3627) Measurement Type	H

9.5.1.6 Vascular Measurement Group (TID 5104)

**Table 9.5-7
Vascular Measurement Group in SMALL PARTS SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
E-8-4		CONTAINER	\$AnatomyGroup		Flow
E-8-4-1	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = DCID (12119) Vascular Ultrasound Property \$Derivation = DCID (3627)	

				Measurement Type
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9.5.1.7 Small Parts User Creation Group Section (TID SM99510)

**Table 9.5-8
User Creation Group in SMALL PARTS SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
E-8-7	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Group Name")			*Creation ID: Randomly generated 7-digit unique ID
E-8-7-1	CONTAINS	NUM	(99900-Creation ID, MDSN, "User Creation Item Name")			
E-8-7-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.5.2 SmallParts Measurement and Calculation used in Small Parts SR

9.5.2.1 Thyroid Measurement and Calculation used in Small Parts SR

**Table 9.5-9
Thyroid Measurement and Calculation Items**

RS85 Label	DICOM SR Concept Name (CDS CV CM)
Thyroid	SRT\T-B6000\Thyroid
Mass1	SRT\M-03000\Mass
Mass1 L	SRT\G-A22A\Length
Mass1 D	DCM\G-D785\Depth
Mass1 W	SRT\G-A220\Width
Mass1 Vol.	SRT\G-D705\Volume
Mass2	SRT\M-03000\Mass
Mass2 L	SRT\G-A22A\Length
Mass2 D	DCM\G-D785\Depth
Mass2 W	SRT\G-A220\Width
Mass2 Vol.	SRT\G-D705\Volume

Mass3	SRT\M-03000\Mass
Mass3 L	SRT\G-A22A\Length
Mass3 D	DCM\G-D785\Depth
Mass3 W	SRT\G-A220\Width
Mass3 Vol.	SRT\G-D705\Volume
Mass4	SRT\M-03000\Mass
Mass4 L	SRT\G-A22A\Length
Mass4 D	DCM\G-D785\Depth
Mass4 W	SRT\G-A220\Width
Mass4 Vol.	SRT\G-D705\Volume
Mass5	SRT\M-03000\Mass
Mass5 L	SRT\G-A22A\Length
Mass5 D	DCM\G-D785\Depth
Mass5 W	SRT\G-A220\Width
Mass5 Vol.	SRT\G-D705\Volume
Thyroid Vol.	MDSN\99100-6\Thyroid Volume
Thyroid L	SRT\G-A22A\Length
Thyroid H	DCM\121207\Height
Thyroid W	SRT\G-A220\Width
Thyroid Flow	MDSN\99100-7\Thyroid Flow
PSV	LN\11726-7\Peak Systolic Velocity
EDV	LN\11653-3\End Diastolic Velocity
TAPV	LN\11692-1\Time averaged peak velocity
TAMV	LN\20352-1\Time averaged mean velocity
PGmax	LN\20247-3\Peak Gradient
PGmean	LN\20256-4\Mean Gradient
S/D	LN\12144-2\Systolic to Diastolic Velocity Ratio
D/S	MDSN\99200-01\Diastolic to Systolic Velocity Ratio
RI	LN\12023-8\Resistivity Index
PI	LN\12008-9\Pulsatility Index
%StA	SRT\R-101BA\Lumen Area Stenosis
%StA Outer Area	SRT\G-0366\Vessel lumen cross-sectional area
%StA Inner Area	SRT\R-1025D\Vessel Intimal Cross-Sectional Area
%StD	SRT\R-101BB\Lumen Diameter Stenosis
%StD Outer Dist.	SRT\G-0364\Vessel lumen diameter

%StD Inner Dist.	SRT\R-1025C\Vessel Intimal Diameter
Vesl. Area	MDSN\99200-02\Vessel Area
Vol. Flow(A)	SRT\G-0365\Vessel outside diameter
Vesl. Dist	LN\33878-0\Volume flow
Vol. Flow(D)	LN\33878-0\Volume flow

9.5.2.2 Testis Measurement and Calculation used in Small Parts SR

**Table 9.5-9
Testis Measurement and Calculation Items**

RS85 Label	DICOM SR Concept Name (CDS CV CM)
Testis	SRT\T-94000\Testis
Mass1	SRT\M-03000\Mass
Mass1 L	SRT\G-A22A\Length
Mass1 D	DCM\G-D785\Depth
Mass1 W	SRT\G-A220\Width
Mass1 Vol.	SRT\G-D705\Volume
Mass2	SRT\M-03000\Mass
Mass2 L	SRT\G-A22A\Length
Mass2 D	DCM\G-D785\Depth
Mass2 W	SRT\G-A220\Width
Mass2 Vol.	SRT\G-D705\Volume
Mass3	SRT\M-03000\Mass
Mass3 L	SRT\G-A22A\Length
Mass3 D	DCM\G-D785\Depth
Mass3 W	SRT\G-A220\Width
Mass3 Vol.	SRT\G-D705\Volume
Mass4	SRT\M-03000\Mass
Mass4 L	SRT\G-A22A\Length
Mass4 D	DCM\G-D785\Depth
Mass4 W	SRT\G-A220\Width
Mass4 Vol.	SRT\G-D705\Volume
Mass5	SRT\M-03000\Mass
Mass5 L	SRT\G-A22A\Length

Mass5 D	DCM\G-D785\Depth
Mass5 W	SRT\G-A220\Width
Mass5 Vol.	SRT\G-D705\Volume
Testis Vol.	MDSN\99100-9\Testis Volume
Testis L	SRT\G-A22A\Length
Testis H	DCM\121207\Height
Testis W	SRT\G-A220\Width
Testis Flow	MDSN\99100-10\Testis Flow
PSV	LN\11726-7\Peak Systolic Velocity
EDV	LN\11653-3\End Diastolic Velocity
TAPV	LN\11692-1\Time averaged peak velocity
TAMV	LN\20352-1\Time averaged mean velocity
PGmax	LN\20247-3\Peak Gradient
PGmean	LN\20256-4\Mean Gradient
S/D	LN\12144-2\Systolic to Diastolic Velocity Ratio
D/S	MDSN\99200-01\Diastolic to Systolic Velocity Ratio
RI	LN\12023-8\Resistivity Index
PI	LN\12008-9\Pulsatility Index
%StA	SRT\R-101BA\Lumen Area Stenosis
%StA Outer Area	SRT\G-0366\Vessel lumen cross-sectional area
%StA Inner Area	SRT\R-1025D\Vessel Intimal Cross-Sectional Area
%StD	SRT\R-101BB\Lumen Diameter Stenosis
%StD Outer Dist.	SRT\G-0364\Vessel lumen diameter
%StD Inner Dist.	SRT\R-1025C\Vessel Intimal Diameter
Vesl. Area	MDSN\99200-02\Vessel Area
Vol. Flow(A)	SRT\G-0365\Vessel outside diameter
Vesl. Dist	LN\33878-0\Volume flow
Vol. Flow(D)	LN\33878-0\Volume flow

9.5.2.3 Superficial Measurement and Calculation used in Small Parts SR

**Table 9.5-10
Superficial Measurement and Calculation Items**

RS85 Label	DICOM SR Concept Name (CDS CV CM)
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Superficial	SRT\G-A139\Superficial
Mass1	SRT\M-03000\Mass
Mass1 L	SRT\G-A22A\Length
Mass1 D	DCM\G-D785\Depth
Mass1 W	SRT\G-A220\Width
Mass1 Vol.	SRT\G-D705\Volume
Mass2	SRT\M-03000\Mass
Mass2 L	SRT\G-A22A\Length
Mass2 D	DCM\G-D785\Depth
Mass2 W	SRT\G-A220\Width
Mass2 Vol.	SRT\G-D705\Volume
Mass3	SRT\M-03000\Mass
Mass3 L	SRT\G-A22A\Length
Mass3 D	DCM\G-D785\Depth
Mass3 W	SRT\G-A220\Width
Mass3 Vol.	SRT\G-D705\Volume
Mass4	SRT\M-03000\Mass
Mass4 L	SRT\G-A22A\Length
Mass4 D	DCM\G-D785\Depth
Mass4 W	SRT\G-A220\Width
Mass4 Vol.	SRT\G-D705\Volume
Mass5	SRT\M-03000\Mass
Mass5 L	SRT\G-A22A\Length
Mass5 D	DCM\G-D785\Depth
Mass5 W	SRT\G-A220\Width
Mass5 Vol.	SRT\G-D705\Volume
Superficial Vol.	MDSN\99100-11\Superficial Volume
Superficial L	SRT\G-A22A\Length
Superficial H	DCM\121207\Height
Superficial W	SRT\G-A220\Width
Superficial Flow	MDSN\99100-12\Superficial Flow
PSV	LN\11726-7\Peak Systolic Velocity
EDV	LN\11653-3\End Diastolic Velocity
TAPV	LN\11692-1\Time averaged peak velocity
TAMV	LN\20352-1\Time averaged mean velocity

PGmax	LN\20247-3\Peak Gradient
PGmean	LN\20256-4\Mean Gradient
S/D	LN\12144-2\Systolic to Diastolic Velocity Ratio
D/S	MDSN\99200-01\Diastolic to Systolic Velocity Ratio
RI	LN\12023-8\Resistivity Index
PI	LN\12008-9\Pulsatility Index
%StA	SRT\R-101BA\Lumen Area Stenosis
%StA Outer Area	SRT\G-0366\Vessel lumen cross-sectional area
%StA Inner Area	SRT\R-1025D\Vessel Intimal Cross-Sectional Area
%StD	SRT\R-101BB\Lumen Diameter Stenosis
%StD Outer Dist.	SRT\G-0364\Vessel lumen diameter
%StD Inner Dist.	SRT\R-1025C\Vessel Intimal Diameter
Vesl. Area	MDSN\99200-02\Vessel Area
Vol. Flow(A)	SRT\G-0365\Vessel outside diameter
Vesl. Dist	LN\33878-0\Volume flow
Vol. Flow(D)	LN\33878-0\Volume flow

9.6 BREAST IMAGING STRUCTURED REPORT TEMPLATE

9.6.1 Breast Imaging Report (TID 4200)

**Table 9.6-1
Breast Imaging Report**

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	(111400, DCM, "Breast Imaging Report")		
2	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants		
3	CONTAINS	INCLUDE	DTID (4202) Breast Imaging Report Narrative		
4	CONTAINS	INCLUDE	DTID (4208) Breast Imaging Report Supplementary Data		

9.6.1.1 Language of Content Item and Descendants (TID 1204)

**Table 9.6-2
Breast Imaging Procedure Reported**

No	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
F-1	HAS CONCEPT MOD	CODE	(121049,DCM,"Language of Content Item and Descendants")	(en, RFC3066, "English")	

9.6.1.2 Breast Imaging Report Narrative (TID 4202)

**Table 9.6-3
Breast Imaging Report Report Narrative**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
F-2	CONTAINS	CONTAINER	(111412, DCM, "Narrative Summary")		

F-2-1	CONTAINS	CONTAINER	(121058, DCM, "Procedure reported")		
F-2-1-1	HAS OBS CONTEXT	INCLUDE	DTID (1002) Observer Context		
F-2-1-7	CONTAINS	TEXT	(121058, DCM, "Procedure reported")	"Ultrasonography of breast"	

9.6.1.3 Observer Context (TID 1002)

**Table 9.6-4
OBSERVER CONTEXT IN BREAST SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
F-2-1-1	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
F-2-1-2	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician
F-2-1-3	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025 ,DCM,"Patient")	
F-2-1-4	HAS OBS CONTEXT	PNAME	(121029,DCM, "Subject Name")		LastName, FirstName
F-2-1-5	HAS OBS CONTEXT	DATE	(121031,DCM, "Subject Birth Date")		BirthDate
F-2-1-6	HAS OBS CONTEXT	CODE	(121032,DCM, "Subject Sex")	(M, DCM, "Male") (F, DCM, "Female") (U, DCM, "Unknown sex")	Gender

9.6.1.4 Breast Imaging Report Supplementary Data (TID 4208)

**Table 9.6-5
Breast Imaging Report Supplementary Data**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label

F-3	CONTAINS	CONTAINER	(111414, DCM, "Supplementary Data")		
F-3-1	CONTAINS	INCLUDE	DTID (4206) Breast Imaging Report Finding Section		

9.6.1.5 Breast Imaging Report Finding Section (TID 4206)

**Table 9.6-6
Breast Imaging Report Finding Section**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
F-3-1	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
F-3-1-1	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported			
F-3-1-2	CONTAINS	CODE	(121071, DCM, "Finding")	(111099, DCM, "Selected region")	Seed Point, Seed Ellipse	
				(M-03000, SRT, "Mass")	Mass	
F-3-1-2-1	HAS OBS CONTEXT	TEXT	(125010, DCM, "Identifier")		'1','2','3',,,	
F-3-1-2-2	HAS PROPERTIES	INCLUDE	DTID (4203) Breast Imaging Assessment			Ref. Table 9.6-8
F-3-1-2-3	HAS PROPERTIES	INCLUDE	DTID (1400) Linear Measurement			Ref. Table 9.6-9
F-3-1-2-4	HAS PROPERTIES	INCLUDE	DTID (1401) Area Measurement			Ref. Table 9.6-10
F-3-1-2-5	HAS PROPERTIES	INCLUDE	DTID (1402) Volume Measurement		Vol.	Ref. Table 9.6-11
F-3-1-2-6	HAS PROPERTIES	NUM	(99180-1, MDSN, "Angle")		Angle	
F-3-1-2-7	HAS	CODE	(M-020F9, SRT, "Shape")	DCID (6004)	Shape	Ref. Table

	PROPERTIES			Mammography Characteristics of Shape		9.6-15
F-3-1-2-8	HAS PROPERTIES	CODE	(111037, DCM, "Margins")	DCID (6006) Mammography Characteristics of Margin	Margin	Ref. Table 9.6-16
F-3-1-2-9	HAS PROPERTIES	CODE	(111009, DCM, "Calcification Type")	DCID (6010) Mammography Calcification Types	Calcifications	Ref. Table 9.6-17
F-3-1-2-10	HAS PROPERTIES	CODE	(G-C189, SRT, "Associated Finding")	DCID (6056) Associated Findings for Breast	Special Case	Ref. Table 9.6-18
F-3-1-2-11	HAS PROPERTIES	CODE	(111354, DCM, "Orientation")	DCID (6152) Orientation	Orientation	Ref. Table 9.6-19
F-3-1-2-12	HAS PROPERTIES	CODE	(111357, DCM, "Lesion boundary")	DCID (6153) Lesion boundary	Lesion boundary	Ref. Table 9.6-20
F-3-1-2-13	HAS PROPERTIES	CODE	(111360, DCM, "Echo pattern")	DCID (6154) Echo pattern	Echo pattern	Ref. Table 9.6-21
F-3-1-2-14	HAS PROPERTIES	CODE	(111366, DCM, "Posterior acoustic features")	DCID (6155) Posterior acoustic features	Posterior Feature	Ref. Table 9.6-22
F-3-1-2-15	HAS PROPERTIES	CODE	(111371, DCM, "Identifiable effect on surrounding tissues")	DCID (6015) Single Image Finding from BI-RADS®	Surrounding Tissue	Ref. Table 9.6-23
F-3-1-2-16	HAS PROPERTIES	CODE	(111372, DCM, "Vascularity")	DCID (6157) Vascularity	Vascularity	Ref. Table 9.6-24
F-3-1-2-17	HAS PROPERTIES	CODE	(99600-01, MDSN, "Vascular Abnormalities")	DCID (6157) Vascularity	Vascular Abnormalities	Ref. Table 9.6-24
F-3-1-2-18	HAS PROPERTIES	CODE	(99600-02, MDSN, "Elasticity Assessment")	DCID (99601) Elasticity Assessment	Elasticity Assessment	Ref. Table 9.6-25

F-3-1-3	CONTAINS	INCLUDE	DTID (SM99300) S-Shearwave Group		Breast Shearwave	Ref. Table 9.2-16
F-3-1-4	CONTAINS	INCLUDE	DTID (SM99310) S-Shearwave Imaging Elasticity Group			Ref. Table 9.2-17
F-3-1-5	CONTAINS	INCLUDE	DTID (SM99320) S-Shearwave Imaging Elasticity Ratio Group			Ref. Table 9.2-18
F-3-1-6	CONTAINS	INCLUDE	DTID (SM99610) Breast User Creation Group Section			Ref. Table 9.6-12

9.6.1.6 Breast Imaging Procedure Reported (TID 4201)

**Table 9.6-7
Breast Imaging Procedure Reported**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
F-3-1-1	CONTAINS	CODE	(121058, DCM, "Procedure reported")	(P5-B8500, SRT, "Ultrasonography of breast")	
F-3-1-1-1	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(T-04030, SRT, "Left breast") (T-04020, SRT, "Right breast")	Lt, Rt

9.6.1.7 Breast Imaging Assessment (TID 4203)

**Table 9.6-8
Breast Imaging Assessment**

	REL	VT	Concept Name	Unit / CODE Value	Comments
F-3-1-2-2	HAS OBS CONTEXT	CODE	(111005, DCM, "Assessment Category")	DCID (6027) Mammography Assessment	Ref. Table 9.6-14

9.6.1.8 Linear Measurement Template (TID 1400)

**Table 9.6-9
Linear Measurement**

	REL	VT	Concept Name	Unit / CODE Value	Comments
F-3-1-2-3	CONTAINS	NUM	Context ID 7470 Linear Measurements	Units = DCID (7460) Units of Linear Measurement	Ref. Table 9.6-13

9.6.1.9 Area Measurement Template (TID 1401)

**Table 9.6-10
Area Measurement**

	REL	VT	Concept Name	Unit / CODE Value	Comments
F-3-1-2-4	CONTAINS	NUM	(G-A166, SRT, "Area")	Units = DCID (7461) Units of Area Measurement	

9.6.1.10 Volume Measurement Template (TID 1402)

**Table 9.6-11
Volume Measurement**

	REL	VT	Concept Name	Unit / CODE Value	Comments
F-3-1-2-5	CONTAINS	NUM	(G-D705, SRT, "Volume")	Units = DCID (7462) Units of Volume Measurement	

9.6.1.11 Breast User Creation Group Section (TID SM99610)

**Table 9.6-12
User Creation Group in Breast SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
F-3-1-3	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Group Name")			*Creation ID: Randomly generated 7-digit unique ID
F-3-1-3-1	CONTAINS	NUM	(99900-Creation ID, MDSN, "User Creation			

			Item Name")			
F-3-1-3-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID-Derivation		

9.6.2 Standard Extended Context Groups in Breast SR

Table 9.6-13
Context ID 7470 Linear Measurements

CSD	CV	CM	RS85 Label
SRT	G-A22A	Length	Length, L
DCM	121206	Distance	Distance
SRT	G-A220	Width	Width, W
SRT	G-D785	Depth	Depth, D
DCM	121207	Height	Height, H

Table 9.6-14
Context ID 6027 Mammography Assessment

CSD	CV	CM	RS85 Label
BI	II.AC.a	0 - Need additional imaging evaluation	Unknown
BI	II.AC.b.1	1-Negative	Negative
BI	II.AC.b.2	2-Benign Finding	Benign
BI	II.AC.b.3	3-Probably Benign Finding-short interval follow-up	Probably benign Possibly Benign
BI	II.AC.b.4	4-Suspicious abnormality, biopsy should be considered	Possibly Malignant
BI	MA.II.A.5.4A	4A-Low suspicion	Low suspicion of Malignancy
BI	MA.II.A.5.4B	4B-Intermediate suspicion	Intermediate suspicion of malignancy
BI	MA.II.A.5.4C	4C-Moderate suspicion	Moderate concern, but not classic for malignancy
BI	II.AC.b.5	5-Highly suggestive of malignancy, take appropriate action	Highly suggestive of malignancy
BI	MA.II.A.5.6	6-Known biopsy proven malignancy	Known biopsy-proven malignancy

Table 9.6-15
Context ID 6004 Mammography Characteristics of Shape

CSD	CV	CM	RS85 Label
SRT	M-02100	Round shape	Round
SRT	M-02120	Ovoid shape (Oval)	Oval
SRT	G-A402	Irregular	Irregular

Table 9.6-16
Context ID 6006 Mammography Characteristics of Margin

CSD	CV	CM	RS85 Label
SRT	F-01741	Circumscribed lesion	Circumscribed
SRT	F-01742	Microlobulated lesion	Microlobulated
SRT	F-01744	Indistinct lesion	Indistinct
SRT	F-01745	Spiculated lesion	Spiculated
DCM	111343	Angular margins	Angular

Table 9.6-17
Context ID 6010 Mammography Calcification Types

CSD	CV	CM	RS85 Label
SRT	R-41198	Unknown	Unknown
DCM	111345	Macrocalcifications	Macrocalcifications
DCM	111347	Calcifications outside of a mass	Micro. Out Of Mass Outside of a mass
DCM	111346	Calcifications within a mass	Macro. In Mass In a mass
MDSN	99018-12	Intraductal	Intraductal

Table 9.6-18
Context ID 6056 Associated Findings for Breast

CSD	CV	CM	RS85 Label
SRT	R-41198	Unknown	Unknown
DCM	111129	Clustered microcysts	Clustered Microcysts
DCM	111130	Complicated cyst	Complicated Cysts

SRT	D7-90382	Sebaceous cyst of skin of breast	Mass in or on skin
SRT	M-30400	Foreign body	Foreign Body
SRT	T-C4351	Intra-mammary lymph node	Intrama. Lymph Nodes
SRT	T-C4710	Axillary lymph node	Axillary Lymph Node
MDSN	99018-24	Foreign Body+Implants	Foreign Body+Implants
MDSN	99018-21	Simple Cyst	Simple Cyst
MDSN	99018-22	Post-surg. Fluid Coll.	Post-surg. Fluid Coll.
MDSN	99018-23	Fat Necrosis	Fat Necrosis

Table 9.6-19
Context ID DCID 6152 Orientation

CSD	CV	CM	RS85 Label
DCM	111355	Parallel	Parallel
DCM	111356	Not parallel	Not parallel

Table 9.6-20
Context ID 6153 Lesion boundary

CSD	CV	CM	RS85 Label
DCM	111358	Abrupt interface	Abrupt Interface
DCM	111359	Echogenic halo	Echogenic Halo

Table 9.6-21
Context ID 6154 Echo Pattern

CSD	CV	CM	RS85 Label
DCM	111361	Anechoic	Anechoic
DCM	111362	Hyperechoic	Hyperechoic
DCM	111363	Complex	Complex Echogenicity Complex Cystic And Solid
DCM	111364	Hypoechoic	Hypoechoic
DCM	111365	Isoechoic	Isoechoic
MDSN	99018-13	Heterogeneous	Heterogeneous

Table 9.6-22
Context ID 6155 Posterior acoustic features

CSD	CV	CM	RS85 Label
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DCM	111367	No posterior acoustic features	No Posterior Findings No Posterior Features
DCM	111368	Posterior enhancement	Enhancement
DCM	111369	Posterior shadowing	Shadowing
DCM	111370	Combined posterior enhancement and shadowing	Combined Pattern

Table 9.6-23
Context ID 6015 Single Image Finding from BI-RADS®

CSD	CV	CM	RS85 Label
SRT	R-41198	Unknown	Unknown
MDSN	99018-11	Duct Changes	Duct Changes
DCM	111111	Cooper's ligament changes	Cooper Ligament Chg.
SRT	M-36300	Edema	Edema
SRT	F-01795	Architectural distortion of breast	Architectural Changes
SRT	F-0179A	Skin thickening of breast	Skin Thickening
SRT	F-01799	Skin retraction of breast	Skin Retraction

Table 9.6-24
Context ID 6157 Vascularity

CSD	CV	CM	RS85 Label
DCM	111373	Vascularity not present	None Absent
DCM	111374	Vascularity not assessed	Unknown
DCM	111375	Vascularity present in lesion	In Lesion
DCM	111376	Vascularity present immediately adjacent to lesion	Adjacent To Lesion
DCM	111377	Diffusely increased vascularity in surrounding tissue	Diffuse Vascularity
MDSN	99018-14	Internal Vascularity	Internal Vascularity
MDSN	99018-15	Vessels In Rim	Vessels In Rim
MDSN	99018-16	AVMs	AVMs
MDSN	99018-17	Mondor Disease	Mondor Disease

Table 9.6-25
Context ID 99601 Elasticity Assessment

CSD	CV	CM	RS85 Label
MDSN	99018-18	Soft	Soft
MDSN	99018-19	Intermediate	Intermediate
MDSN	99018-20	Hard	Hard

9.7 THYROID IMAGING STRUCTURED REPORT TEMPLATE

9.7.1 Thyroid Imaging Report (TID SM99700)

**Table 9.7-1
Thyroid Imaging Report**

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	(99700, MDSN, " Soft Tissue Neck and Head Imaging Report")		
2	HAS CONCEPT MOD	CODE	(121049,DCM,"Language of Content Item and Descendants")	(en, RFC3066, "English")	
3	HAS OBS CONTEXT	INCLUDE	DTID (1002) Observer Context		
4	CONTAINS	INCLUDE	DTID (SM99701) Thyroid Imaging Finding Section		

9.7.1.1 Observer Context (TID 1002)

**Table 9.7-2
OBSERVER CONTEXT IN THYROID SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
G-3	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
G-4	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician
G-5	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025 ,DCM,"Patient")	
G-6	HAS OBS CONTEXT	PNAME	(121029,DCM, "Subject Name")		LastName, FirstName
G-7	HAS OBS CONTEXT	DATE	(121031,DCM, "Subject Birth Date")		BirthDate
G-8	HAS OBS CONTEXT	CODE	(121032,DCM, "Subject Sex")	(M, DCM, "Male") (F, DCM, "Female") (U, DCM, "Unknown sex")	Gender

9.7.1.2 Thyroid Imaging Finding Section (TID SM99701)

Table 9.7-3

Thyroid Imaging Report Finding Section

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comments
G-9	CONTAINS	CONTAINER	(121070, DCM, "Findings")			
G-9-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	EV (T-D1600, SRT, "Neck")		
G-9-2	HAS CONCEPT MOD	CODE	(G-0373, SRT, "Image Mode")	EV (G-03A2, SRT, "2D mode")		
G-9-3	CONTAINS	TEXT	(121106, DCM, "Comment")			
G-9-4	CONTAINS	CONTAINER	(T-B6000, SRT, "Thyroid")			
G-9-4-1	HAS OBS CONTEXT	TEXT	(125010, DCM, "Identifier")		'1','2','3',,,	
G-9-4-2	HAS PROPERTIES	INCLUDE	DTID (1400) Linear Measurement			Ref. Table 9.6-9
G-9-4-3	HAS PROPERTIES	INCLUDE	DTID (1401) Area Measurement			Ref. Table 9.6-10
G-9-4-4	HAS PROPERTIES	CODE	(M-020F9, SRT, "Shape")	DCID (99701) Thyroid Shape	Shape	Ref. Standard Extended Context Groups in Thyroid SR Table 9.7-4
G-9-4-5	HAS PROPERTIES	CODE	(111037, DCM, "Margins")	DCID (99702) Thyroid Margin	Margin	Ref. Table 9.7-5
G-9-4-6	HAS PROPERTIES	CODE	(111009, DCM, "Calcification Type")	DCID (99703) Thyroid Calcification Type	Calcifications	Ref. Table 9.7-6

G-9-4-7	HAS PROPERTIES	CODE	(111354, DCM, "Orientation")	DCID (6152) Orientation	Orientation	Ref. Table 9.6-19
G-9-4-8	HAS PROPERTIES	CODE	(99700-05, MDSN, "Taller than Wide")	DCID (99706) Taller than Wide	Taller than Wide	Ref. Table 9.7-9
G-9-4-9	HAS PROPERTIES	CODE	(99700-01, MDSN, "Composition")	DCID (99704) Thyroid Composition	Composition	Ref. Table 9.7-7
G-9-4-10	HAS PROPERTIES	CODE	(99700-06, MDSN, "Nodule Composition")	DCID (99707) Nodule Composition	Nodule Composition	Ref. Table 9.7-10
G-9-4-11	HAS PROPERTIES	CODE	(99700-02, MDSN, "Echogenicity")	DCID (99705) Thyroid Echogenicity	Echogenicity	Ref. Table 9.7-8
G-9-4-12	HAS PROPERTIES	CODE	(99700-03, MDSN, "Spongiform")	(99019-14, MDSN, "Appearance") (99019-15, MDSN, "Nonappearance")	Spongiform	
G-9-4-13	HAS PROPERTIES	CODE	(99700-04, MDSN, "Central Vascularity")	(99018-19, MDSN, "Unselected") (99019-14, MDSN, "Appearance") (99019-15, MDSN, "Nonappearance")	Central Vascularity	
G-9-4-14	HAS PROPERTIES	CODE	(99700-07, MDSN, "Colour flow")	DCID (99708) Colour flow	Colour flow	Ref. Table 9.7-11
G-9-4-15	HAS PROPERTIES	CODE	(110830, DCM, "Elasticity")	DCID (99601) Elasticity Assessment	Elasticity	Ref. Table 9.6-25
G-9-4-16	HAS PROPERTIES	CODE	(99700-08, MDSN, "Cystic Component")	DCID (99709) Cystic Component	Cystic Component	Ref. Table 9.7-12
G-9-4-17	HAS PROPERTIES	CODE	(99700-09, MDSN, "Halo")	DCID (99710) Halo	Halo	Ref. Table 9.7-13
G-9-4-18	HAS PROPERTIES	CODE	(99700-10, MDSN, "Extent")	DCID (99711) Extent	Extent	Ref. Table 9.7-14
G-9-4-19	HAS PROPERTIES	CODE	(99700-11, MDSN, "Lymphadenopathy")	DCID (99712) Lymphadenopathy	Lymphadeno pathy	Ref. Table 9.7-15

9.7.2 Standard Extended Context Groups in Thyroid SR

Table 9.7-4
Context ID 99701 Thyroid Shape

CSD	CV	CM	RS85 Label
SRT	G-A402	Irregular	Irregular
MDSN	99019-01	Ovoid to round	Ovoid to round

Table 9.7-5
Context ID 99702 Thyroid Margin

CSD	CV	CM	RS85 Label
MDSN	99019-02	Well-defined smooth	Well-defined smooth
MDSN	99019-03	Microlobulated/Spiculated	Microlobulated/Spiculated
MDSN	99019-04	Ill-defined	Ill-defined
MDSN	99019-20	Well defined	Well defined
MDSN	99019-21	Irregular/Lobulated/Spiculated	Irregular/Lobulated/Spiculated
MDSN	99019-22	Irregular/Lobulated	Irregular/Lobulated
SRT	F-01745	Spiculated lesion	Spiculated lesion

Table 9.7-6
Context ID 99703 Thyroid Calcification Type

CSD	CV	CM	RS85 Label
MDSN	99019-05	Calcifications	Calcifications
DCM	111345	Macrocalcifications	Macrocalcifications Macro-calcification
MDSN	99019-07	Microcalcifications	Microcalcifications Micro-calcification
MDSN	99019-06	No calcifications	No calcifications
MDSN	99019-23	Rim/Egg shell	Rim/Egg shell

Table 9.7-7
Context ID 99704 Thyroid Composition

CSD	CV	CM	RS85 Label
MDSN	99019-19	Solid	Solid

MDSN	99019-08	Partially cystic	Partially cystic
MDSN	99019-09	Predominantly Solid	Predominantly Solid
MDSN	99019-10	Predominantly cystic	Predominantly cystic
MDSN	99019-11	Cystic	Cystic

Table 9.7-8
Context ID 99705 Thyroid Echogenicity

CSD	CV	CM	RS85 Label
MDSN	99019-12	Hyper/Isoechoic	Hyper/Isoechoic
DCM	111364	Hypoechoic	Hypoechoic Hypo-echoic
MDSN	99019-13	Marked Hypoechoic	Marked Hypoechoic Markedly hypo-echoic
DCM	111362	Hyperechoic	Hyper-echoic
DCM	111365	Isoechoic	Iso-echoic

Table 9.7-9
Context ID 99706 Taller than Wide

CSD	CV	CM	RS85 Label
MDSN	99019-27	AP > TR	AP > TR
MDSN	99019-28	AP <= TR	AP <= TR

Table 9.7-10
Context ID 99707 Nodule Composition

CSD	CV	CM	RS85 Label
MDSN	99019-19	Solid	Solid
MDSN	99019-08	Partially cystic	Partially cystic
MDSN	99019-24	Mixed solid/cystic	Mixed solid/cystic
MDSN	99019-25	Micro-cystic/spongiform	Micro-cystic/spongiform
MDSN	99019-11	Cystic	Cystic

Table 9.7-11
Context ID 99708 Colour flow

CSD	CV	CM	RS85 Label
MDSN	99018-19	Unselected	Unselected

MDSN	99019-29	Central	Central
MDSN	99019-30	Peripheral	Peripheral
MDSN	99019-31	Mixed	Mixed
MDSN	99019-32	None	None

Table 9.7-12
Context ID 99709 Cystic Component

CSD	CV	CM	RS85 Label
MDSN	99018-19	Unselected	Unselected
MDSN	99019-33	Ring down sign - colloid	Ring down sign - colloid
MDSN	99019-34	No Ring down sign	No Ring down sign

Table 9.7-13
Context ID 99710 Halo

CSD	CV	CM	RS85 Label
MDSN	99018-19	Unselected	Unselected
SRT	R-4089B	Absent	Absent
MDSN	99019-35	Interrupted	Interrupted
MDSN	99019-36	Regular/continuous	Regular/continuous

Table 9.7-14
Context ID 99711 Extent

CSD	CV	CM	RS85 Label
MDSN	99018-19	Unselected	Unselected
MDSN	99019-37	Retrosternal extension/tracheal deviation	Retrosternal extension/tracheal deviation
MDSN	99019-32	None	None

Table 9.7-15
Context ID 99712 Lymphadenopathy

CSD	CV	CM	RS85 Label
MDSN	99018-19	Unselected	Unselected
MDSN	99019-39	Suspected malignancy	Suspected malignancy
MDSN	99019-32	None	None

9.8 FETAL ECHO STRUCTURED REPORT TEMPLATE

9.8.1 FetalEcho Ultrasound Report (TID 5220)

Table 9.8-1
FetalEcho Ultrasound Report

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	(125196, DCM, "Fetal Cardiac Ultrasound Report")		
2	HAS CONCEPT MOD	CODE	(121049,DCM,"Language of Content Item and Descendants")	(en, RFC3066, "English")	
3	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observer Context		
4	CONTAINS	INCLUDE	DTID (3602) Cardiovascular Patient Characteristics		
5	CONTAINS	INCLUDE	DTID (5228) Cardiac Ultrasound Fetal Measurement Section		
6	CONTAINS	INCLUDE	DTID (SM99010) OB-GYN User Creation Group Section		Ref. Section 9.1.1.20

9.8.1.1 Observation Context (TID 1001)

Table 9.8-2
OBSERVATION CONTEXT IN FETAL ECHO SR

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
H-1	HAS OBS CONTEXT	CODE	(121005, DCM, "Observer Type")	(121006, DCM, "Person")	
H-2	HAS OBS CONTEXT	PNAME	(121008, DCM, "Person Observer Name")		Ref. Physician
H-3	HAS OBS CONTEXT	CODE	(121024, DCM, "Subject Class")	(121025 ,DCM,"Patient")	
H-4	HAS OBS CONTEXT	PNAME	(121029,DCM, "Subject Name")		Last Name, First Name
H-5	HAS OBS CONTEXT	DATE	(121031,DCM, "Subject Birth Date")		BirthDate

9.8.1.2 Cardiovascular Patient Characteristics (TID 3602)

**Table 9.8-3
Patient Characteristics in FetalEcho SR**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
H-6	CONTAINS	CONTAINER	(121118, DCM, "Patient Characteristics")		
H-6-1	CONTAINS	NUM	(121033, DCM, "Subject Age")	Units = DCID (7456) Units of Measure for Age	Description
H-6-2	CONTAINS	CODE	(121032, DCM, "Subject Sex")	DCID (7455) Sex	
H-6-3	CONTAINS	NUM	(8302-2, LN, "Patient Height")	(cm, UCUM, "centimeter")	Height
H-6-4	CONTAINS	NUM	(29463-7, LN, "Patient Weight")	(kg, UCUM, "kilograms")	Weight
H-6-5	CONTAINS	NUM	(8867-4, LN, "Heart Rate")		HR

9.8.1.3 Cardiac Ultrasound Fetal Measurement Section (TID 5228)

**Table 9.8-4
Cardiac Ultrasound Fetal Measurement Section**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label	Comment
H-7	CONTAINS	CONTAINER	(125016, DCM, "Fetal Measurements")			
H-7-1	HAS OBS CONTEXT	TEXT	(11951-1, LN, "Fetus ID")			
H-7-2	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = DCID (12279) Cardiac Ultrasound Fetal General Measurements		Ref. Table 9.8-6
H-7-3	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-F6845, SRT, "Ductus arteriosus") \$Measurement = DCID (12218) Echocardiography Congenital	Duct Art	Ref. Table 9.8-7
H-7-4	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound	\$SectionSubject = (T-F680F, SRT, "Ductus venosus")	Ductus Venosus	

			Section"	\$Measurement = DCID (12218) Echocardiography Congenital		
H-7-5	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-48710, SRT, "Inferior Vena cava") \$Measurement = DCID (12264) Cardiac Ultrasound Venous Return Systemic Measurements	IVC	Ref. Table 9.8-8
H-7-6	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-32600, SRT, "Left Ventricle") \$Measurement = DCID (12259) Cardiac Ultrasound Ventricles Measurements	LV	Ref. Table 9.8-9
H-7-7	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-32500, SRT, "Right Ventricle") \$Measurement = DCID (12259) Cardiac Ultrasound Ventricles Measurements	RV	
H-7-8	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-32300, SRT, "Left Atrium") \$Measurement = DCID (12265) Cardiac Ultrasound Atria and Atrial Septum Measurements	LA	Ref. Table 9.8-10
H-7-9	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-32200, SRT, "Right Atrium") \$Measurement = DCID (12265) Cardiac Ultrasound Atria and Atrial Septum Measurements	RA	
H-7-10	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-35300, SRT, "Mitral Valve") \$Measurement = DCID (12268) Cardiac Ultrasound Atrioventricular Valves	MV	Ref. Table 9.8-11

				Measurements		
H-7-11	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-35100, SRT, "Tricuspid Valve") \$Measurement = DCID (12268) Cardiac Ultrasound Atrioventricular Valves Measurements	TV	
H-7-12	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-35400, SRT, "Aortic Valve") \$Measurement = DCID (12271) Cardiac Ultrasound Outflow Tracts Measurements	AV	Ref. Table 9.8-12
H-7-13	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-35200, SRT, "Pulmonic Valve") \$Measurement = DCID (12271) Cardiac Ultrasound Outflow Tracts Measurements	PV	
H-7-14	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-44000, SRT, "Pulmonary Artery") \$Measurement = DCID (12260) Cardiac Ultrasound Pulmonary Artery	PA	Ref. Table 9.8-13
H-7-15	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (42000, SRT, "Aorta") \$Measurement = DCID (12274) Cardiac Ultrasound Aorta Measurements	Aorta	Ref. Table 9.8-14
H-7-16	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound Section"	\$SectionSubject = (T-42100, SRT, "Ascending aorta") \$Measurement = DCID (12274) Cardiac Ultrasound Aorta Measurements	Asc. Aorta	
H-7-18	CONTAINS	INCLUDE	DTID (5222) Pediatric, Fetal and Congenital Cardiac Ultrasound	\$SectionSubject = (T-D0765, SRT, "Descending Aorta")	Dsc. Aorta	

			Section"	\$Measurement = DCID (12274) Cardiac Ultrasound Aorta Measurements	
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9.8.1.4 Pediatric, Fetal and Congenital Cardiac Ultrasound Section (TID 5222)

**Table 9.8-5
Pediatric, Fetal and Congenital Cardiac Ultrasound Section**

	REL	VT	Concept Name	Unit / CODE Value	RS85 Label
1	CONTAINS	CONTAINER	(121070, DCM, "Findings")		
1-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	\$SectionSubject	
1-2	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")		
1-3	CONTAINS	INCLUDE	DTID (300) Measurement	\$Measurement = \$Measurement \$Derivation = DCID (3627) Measurement Type \$Method = DCID (12227) Echocardiography Measurement Method	
1-3-1	HAS ACQ CONTEXT	CODE	(G-0373, SRT, "Image Mode")	(G-03A2, SRT, "2D mode") (G-0394, SRT, "M mode")	
1-3-2	HAS ACQ CONTEXT	CODE	(111031, DCM, "Image View")	(G-A19B, SRT, "Apical two chamber") (G-A19C, SRT, "Apical four chamber")	

9.8.2 Standard Extended Context Groups in FetalEcho SR

**Table 9.8-6
Context ID 12279 Cardiac Ultrasound Fetal General Measurements**

CSD	CV	CM	RS85 Label
LN	11948-7	Fetal Heart Rate	Fetal HR
MDSN	99116-08	PR Interval	PR Interval

MDSN	99001-06	Anterior-Posterior Thoracic Diameter	ThD ap
LN	11864-6	Transverse Thoracic Diameter	ThD trans
MDSN	99001-08	Anterior-Posterior Cardiac Diameter	HrtD ap
MDSN	99001-09	Transverse Cardiac Diameter	HrtD trans
MDSN	99001-11	Cardiothoracic Diameter Ratio	CTAR(D)
LN	33068-8	Thoracic Area	ThA
LN	59075-2	Cardiac Cross-sectional Area, transverse by US	HrtA
LN	59076-0	Cardiothoracic Area Ratio	CTAR(A)
LN	11988-3	Thoracic Circumference	ThC
LN	59073-7	Cardiac Circumference, transverse by US	HrtC
LN	59074-5	Cardiothoracic Circumference Ratio	CTAR(C)
LN	11988-3	Thoracic Circumference	ThC
LN	59073-7	Cardiac Circumference, transverse by US	HrtC
LN	59074-5	Cardiothoracic Circumference Ratio	HrtC/ThC
MDSN	99001-12	Cardiac Axis	Cardiac Axis
LN	11726-7	Peak Systolic Velocity	PLI S Vmax
MDSN	99008-05	Peak Diastolic Velocity	PLI D Vmax
LN	11665-7	Minimum Diastolic Velocity	PLI A Vmax
MDSN	99200-09	Preload Index	PLI

Table 9.8-7
Context ID 12218 Echocardiography Congenital

CSD	CV	CM	RS85 Label
LN	11726-7	Peak Systolic Velocity	PSV
LN	11653-3	End Diastolic Velocity	EDV
LN	20247-3	Peak Gradient	PGmax
LN	11692-1	Time averaged peak velocity	Vmean
LN	12144-2	Systolic to Diastolic Velocity Ratio	S/D
MDSN	99200-01	Diastolic to Systolic Velocity Ratio	D/S
LN	12023-8	Resistivity Index	RI
LN	12008-9	Pulsatility Index	PI
MDSN	99001-13	Ductus arteriosus diameter	Duct Art
LN	11726-7	Peak Systolic Velocity	S
MDSN	99008-05	Peak Diastolic Velocity	D
LN	11665-7	Minimum Diastolic Velocity	a

LN	11692-1	Time averaged peak velocity	Vmean
LN	20352-1	Time Averaged Mean Velocity	TAMV
LN	20256-4	Mean Gradient	PGmean
LN	20247-3	Peak Gradient	PGmax
LN	12144-2	Systolic to Diastolic Velocity Ratio	S/D
MDSN	99200-01	Diastolic to Systolic Velocity Ratio	D/S
MDSN	99200-00	Systolic to Atrial Velocity Ratio	S/a
LN	12023-8	Resistivity Index	RI
LN	12008-9	Pulsatility Index	PI
MDSN	99200-09	Preload Index	PLI
MDSN	99200-10	Peak velocity index for veins	PVIV

Table 9.8-8

Context ID 12264 Cardiac Ultrasound Venous Return Systemic Measurements

CSD	CV	CM	RS85 Label
LN	11726-7	Peak Systolic Velocity	S
MDSN	99008-05	Peak Diastolic Velocity	D
LN	11665-7	Minimum Diastolic Velocity	a
LN	11692-1	Time averaged peak velocity	Vmean
LN	20256-4	Mean Gradient	PGmean
LN	20247-3	Peak Gradient	PGmax
LN	12144-2	Systolic to Diastolic Velocity Ratio	S/D
MDSN	99200-01	Diastolic to Systolic Velocity Ratio	D/S
MDSN	99200-00	Systolic to Atrial Velocity Ratio	S/a
LN	12023-8	Resistivity Index	RI
LN	12008-9	Pulsatility Index	PI
MDSN	99200-09	Preload Index	PLI
MDSN	99200-10	Peak velocity index for veins	PVIV
LN	18006-7	Inferior Vena Cava Diameter	IVC

Table 9.8-9

Context ID 12259 Cardiac Ultrasound Ventricles Measurements

CSD	CV	CM	Modifier	RS85 Label
LN	29436-3	Left Ventricle Internal End Diastolic Dimension	ImgMode=SRT\G-03A2\2D mode	LVLd A2C

SRT	G-0375	Left Ventricular Diastolic Area	ImgView=SRT\G-A19B\Apical	LVA d A2C
LN	18026-5	Left Ventricular End Diastolic Volume	two chamber	LVEDV A2C
LN	29438-9	Left Ventricle Internal Systolic Dimension		LVLs A2C
SRT	G-0374	Left Ventricular Systolic Area		LVA s A2C
LN	18148-7	Left Ventricular End Systolic Volume		LVESV A2C
SRT	F-32120	Stroke Volume		LV SV A2C
SRT	F-32100	Cardiac Output		LV CO A2C
LN	18043-0	Left Ventricular Ejection Fraction		LV EF A2C
LN	29436-3	Left Ventricle Internal End Diastolic Dimension		LVLd A4C
SRT	G-0375	Left Ventricular Diastolic Area		LVA d A4C
LN	18026-5	Left Ventricular End Diastolic Volume	ImgMode=SRT\G-03A2\2D	LVEDV A4C
LN	29438-9	Left Ventricle Internal Systolic Dimension	mode	LVLs A4C
SRT	G-0374	Left Ventricular Systolic Area	ImgView=SRT\G-A19C\Apical	LVA s A4C
LN	18148-7	Left Ventricular End Systolic Volume	four chamber	LVESV A4C
SRT	F-32120	Stroke Volume		LV SV A4C
SRT	F-32100	Cardiac Output		LV CO A4C
LN	18043-0	Left Ventricular Ejection Fraction		LV EF A4C
LN	18026-5	Left Ventricular End Diastolic Volume	Measurement	LVEDV BP
LN	18148-7	Left Ventricular End Systolic Volume	Method=DCM\125207\Method of	LVESV BP
SRT	F-32120	Stroke Volume	Disks, Biplane	LV SV BP
SRT	F-32100	Cardiac Output	ImgMode=SRT\G-03A2\2D	LV CO BP
LN	18043-0	Left Ventricular Ejection Fraction	mode	LV EF BP
MDSN	99104-13	Left Ventricular Diameter		LV Diam
MDSN	99104-14	Left Ventricular Length		LV Length
LN	18054-7	Interventricular Septum % Thickening		IVS
LN	29436-3	Left Ventricle Internal End Diastolic Dimension		LVIDd
LN	29438-9	Left Ventricle Internal Systolic Dimension	ImgMode=SRT\G-03A2\2D	LVIDs
LN	18053-9	Left Ventricle Posterior Wall % Thickening	mode	LVPW
MDSN	99104-11	Left Ventricular Inlet		LV Inlet
MDSN	99104-12	Left Ventricular Area		LV Area
MDSN	99104-09	Relative Wall Thickness		RWT
LN	18026-5	Left Ventricular End Diastolic Volume		LV Vol. d
LN	18148-7	Left Ventricular End Systolic Volume		LV Vol. s

SRT	F-32120	Stroke Volume		SV	
SRT	F-32100	Cardiac Output		CO	
LN	18043-0	Left Ventricular Ejection Fraction		EF	
LN	18154-5	Interventricular Septum Diastolic Thickness	ImgMode=SRT\G-0394\M mode	IVSd	
LN	29436-3	Left Ventricle Internal End Diastolic Dimension		LVIDd	
LN	18152-9	Left Ventricle Posterior Wall Diastolic Thickness		LVPWd	
MDSN	99104-09	Relative Wall Thickness		RWT	
LN	18158-6	Interventricular Septum Systolic Thickness		IVSs	
LN	29438-9	Left Ventricle Internal Systolic Dimension		LVIDs	
LN	18156-0	Left Ventricle Posterior Wall Systolic Thickness		LVPWs	
LN	18026-5	Left Ventricular End Diastolic Volume		LV EDV	
LN	18148-7	Left Ventricular End Systolic Volume		LV ESV	
LN	18051-3	Left Ventricular Fractional Shortening		FS	
SRT	F-32120	Stroke Volume			SV
SRT	F-32100	Cardiac Output			CO
LN	18043-0	Left Ventricular Ejection Fraction			EF
LN	18087-7	Left Ventricle Mass			LV Mass
SRT	G-037E	Left Ventricular Isovolumic Contraction Time		IVCT	
DCM	122211	Left Ventricular ejection time		ET	
LN	18071-1	Left Ventricular Isovolumic Relaxation Time		IVRT	
MDSN	99104-04	Left Ventricle Total Systolic Time		MCO	
LN	59099-2	Myocardial Performance Index (Tei)		Tei Index	
SRT	G-038F	Cardiovascular Orifice Diameter	FSite=SRT\T-32650\Left Ventricle Outflow Tract	LVOT Diam	
SRT	G-038E	Cardiovascular Orifice Area		LVOT Area	
LN	11726-7	Peak Velocity		LVOT Vmax	
LN	20247-3	Peak Gradient		LVOT PGmax	
LN	20352-1	Mean Velocity		LVOT Vmean	
LN	20256-4	Mean Gradient		LVOT	

				PGmean
LN	20354-7	Velocity Time Integral		LVOT VTI
SRT	F-32120	Stroke Volume		LVOT SV
SRT	F-32100	Cardiac Output		LVOT CO
SRT	G-038F	Cardiovascular Orifice Diameter	FSite=SRT\T-32550\Right Ventricle Outflow Tract	RVOT Diam
SRT	G-038E	Cardiovascular Orifice Area		RVOT Area
LN	11726-7	Peak Velocity		RVOT Vmax
LN	20247-3	Peak Gradient		RVOT PGmax
LN	20352-1	Mean Velocity		RVOT Vmean
LN	20256-4	Mean Gradient		RVOT PGmean
LN	20354-7	Velocity Time Integral		RVOT VTI
SRT	F-32120	Stroke Volume		RVOT SV
SRT	F-32100	Cardiac Output		RVOT CO
MDSN	99105-17	Right Ventricular Diameter		ImgMode=SRT\G-03A2\2D mode
MDSN	99105-18	Right Ventricular Length		RV Length
MDSN	99105-19	Right Ventricular Inlet		RV Inlet
MDSN	99105-20	Right Ventricular Area		RV Area
MDSN	99105-21	Right Ventricular Wall		RV Wall
LN	20304-2	Right Ventricular Internal Diastolic Dimension	ImgMode=SRT\G-0394\M mode	RVDd

Table 9.8-10

Context ID 12265 Cardiac Ultrasound Atria and Atrial Septum Measurements

CSD	CV	CM	RS85 Label
MDSN	99106-06	Left Atrium Diameter	LA Diam
MDSN	99107-06	Right Atrium Diameter	RA Diam

Table 9.8-11

Context ID 12268 Cardiac Ultrasound Atrioventricular Valves Measurements

CSD	CV	CM	RS85 Label
LN	18037-2	Mitral Valve E-Wave Peak Velocity	E
LN	17978-8	Mitral Valve A-Wave Peak Velocity	A

LN	18038-0	Mitral Valve E to A Ratio	E/A
LN	80062-3	Mitral regurgitation Vmax	MR Vmax
MDSN	99114-14	Mitral Valve Diameter	Mitral Valve
LN	18031-5	Tricuspid Valve E Wave Peak Velocity	E
LN	18030-7	Tricuspid Valve A Wave Peak Velocity	A
LN	18039-8	Tricuspid Valve E to A Ratio	E/A
LN	79921-3	Tricuspid regurgitation Vmax	TR Vmax
MDSN	99115-14	Tricuspid Valve Diameter	Tricuspid Valve

Table 9.8-12

Context ID 12271 Cardiac Ultrasound Outflow Tracts Measurements

CSD	CV	CM	RS85 Label
MDSN	99108-11	Aortic Valve Diameter	Aortic Valve
MDSN	99116-07	Pulmonary Valve Diameter	Pulmonary Valve

Table 9.8-13

Context ID 12260 Cardiac Ultrasound Pulmonary Artery

CSD	CV	CM	RS85 Label
LN	11726-7	Peak Systolic Velocity	PSV
LN	11653-3	End Diastolic Velocity	EDV
LN	20247-3	Peak Gradient	PGmax
LN	11692-1	Time averaged peak velocity	Vmean
LN	12144-2	Systolic to Diastolic Velocity Ratio	S/D
MDSN	99200-01	Diastolic to Systolic Velocity Ratio	D/S
LN	12023-8	Resistivity Index	RI
LN	12008-9	Pulsatility Index	PI
LN	18020-8	Main Pulmonary Artery Diameter	MPA Diam
MDSN	99117-01	Pulmonary Artery Diameter	PA Diam
LN	18021-6	Right Pulmonary Artery Diameter	RPA
LN	18019-0	Left Pulmonary Artery Diameter	LPA

Table 9.8-14

Context ID 12274 Cardiac Ultrasound Aorta Measurements

CSD	CV	CM	Finding Site	RS85 Label
LN	11726-7	Peak Systolic Velocity		PSV

LN	11653-3	End Diastolic Velocity		EDV
LN	20247-3	Peak Gradient		PGmax
LN	11692-1	Time averaged peak velocity		Vmean
LN	12144-2	Systolic to Diastolic Velocity Ratio		S/D
MDSN	99200-01	Diastolic to Systolic Velocity Ratio		D/S
LN	12023-8	Resistivity Index		RI
LN	12008-9	Pulsatility Index		PI
LN	18012-5	Ascending Aortic Diameter		Asc. Aorta
LN	18013-3	Descending Aortic Diameter		Desc. Aorta
SRT	T-42310	Aortic Isthmus		Ao Isthmus
LN	11726-7	Peak Systolic Velocity	SRT\T-42304\Transverse Aortic Arch	Transverse Aortic Arch - PSV

9.9 PEDIATRIC STRUCTURED REPORT TEMPLATE

9.9.1 Pediatric Ultrasound Report (TID SM99800)

**Table 9.9-1
Pediatric Ultrasound Report**

No	Rel With Parent	VT	Concept Name	Unit / CODE Value	RS85 Label
1		CONTAINER	(99800, MDSN, "Pediatric Ultrasound Report")		
2	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observer Context		
3	CONTAINS	CONTAINER	(121118, DCM, "Patient Characteristics")		
3-1	CONTAINS	NUM	(8302-2, LN, "Patient Height")		
3-2	CONTAINS	NUM	(29463-7, LN, "Patient Weight")		
3-3	CONTAINS	NUM	(8867-4, LN, "Heart Rate")		HR
3-4	CONTAINS	NUM	(8277-6, LN, "Body Surface Area")		BSA
3-4-1	INFERRED FROM	CODE	(8278-4, LN, "Body Surface Area Formula")	(122241, DCM, "BSA = $0.007184 * WT^{0.425} * HT^{0.725}$ ")	
4	CONTAINS	CONTAINER	(99800-01, MDSN, "Right Hip") (99800-02, MDSN, "Left Hip") (99800-03, MDSN, "Coverage of femoral head")		Rt. Hip Lt. Hip Coverage of femoral head
4-1	CONTAINS	NUM	DCID (99800) Pediatric Hip Ultrasound Measurements	Ref. Table 9.9-3	
5	CONTAINS	INCLUDE	DTID (SM99810) Pediatric User Creation Group Section	Ref. Table 9.9-3	

9.9.1.1 Pediatric User Creation Group Section (TID SM99810)

**Table 9.9-2
User Creation Group in PEDIATRIC SR**

	REL	VT	Concept Name	Unit / CODE	RS85	Comments
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				Value	Label	
5	CONTAINS	CONTAINER	(99900-Creation ID, MDSN, "User Creation Group Name")			*Creation ID: Randomly generated 7-digit unique ID
5-1	CONTAINS	NUM	(99900-Creation ID, MDSN, "User Creation Item Name")			
5-1-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation		

9.9.2 Standard Extended Context Groups in Pediatric SR

**Table 9.9-3
Context ID 99800 Pediatric Hip Ultrasound Measurements**

CSD	CV	CM	RS85 Label
MDSN	99800-04	Alpha Angle	Alpha
MDSN	99800-05	Beta Angle	Beta
MDSN	99800-13	Hip Type	Hip Type
MDSN	99800-06	Hip Angle	Hip Angle
MDSN	99800-07	Right Small Diameter	Rt. d
MDSN	99800-08	Right Large Diameter	Rt. D
MDSN	99800-09	Right Coverage	Rt. Coverage
MDSN	99800-10	Left Small Diameter	Lt. d
MDSN	99800-11	Left Large Diameter	Lt. D
MDSN	99800-12	Left Coverage	Lt. Coverage

9.10 MUSCULOSKELETAL STRUCTURED REPORT TEMPLATE

9.10.1 Musculoskeletal Ultrasound Report (TID SM99900)

**Table 9.10-1
Musculoskeletal Ultrasound Report**

No	Rel With Parent	VT	Concept Name	Comments	RS85 Label
1		CONTAINER	(99900, MDSN, "Musculoskeletal Ultrasound Report")		
2	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observer Context		
3	CONTAINS	CONTAINER	(121118, DCM, "Patient Characteristics")		
3-1	CONTAINS	NUM	(8302-2, LN, "Patient Height")		
3-2	CONTAINS	NUM	(29463-7, LN, "Patient Weight")		
3-3	CONTAINS	NUM	(8867-4, LN, "Heart Rate")		HR
3-4	CONTAINS	NUM	(8277-6, LN, "Body Surface Area")		BSA
3-4-1	INFERRED FROM	CODE	(8278-4, LN, "Body Surface Area Formula")	(122241, DCM, "BSA = $0.007184 \cdot WT^{0.4} \cdot 25 \cdot HT^{0.725}$ ")	
4	CONTAINS	CONTAINER	(121070, DCM, "Findings")		
4-1	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	(99900-01, MDSN, "Shoulder")	
				(99900-02, MDSN, "Wrist")	
				(99900-03, MDSN, "Knee")	
				(99900-04, MDSN, "Ankle")	
4-2	HAS CONCEPT MOD	CODE	(G-C171, SRT, "Laterality")	(G-A100, SRT, "Right") (G-A101, SRT, "Left") (G-A102, SRT, "Unilateral")	

4-3	CONTAINS	CONTAINER	(125007, DCM, "Measurement Group")		
4-3-1	HAS OBS CONTEXT	TEXT	(125010, DCM, "Identifier")	1~10	
4-3-2	CONTAINS	NUM	(121206, DCM, "Distance")		
4-3-2-1	HAS CONCEPT MOD	CODE	(121401, DCM, "Derivation")	Common CID- Derivation	
4-4	CONTAINS	INCLUDE	DTID (SM99310) S-Shearwave Imaging Elasticity Group	Ref. Table 9.2-17	Shearwave
4-5	CONTAINS	INCLUDE	DTID (SM99320) S-Shearwave Imaging Elasticity Ratio Group	Ref. Table 9.2-18	

END OF DOCUMENT

Příloha č. 2

Rozklad kupní ceny a ceny služeb

Kupní cena

Položka (popis položek)	Počet MJ	Cena za MJ (Kč bez DPH)	Cena celkem (Kč bez DPH)	21% DPH (Kč)	Cena celkem (Kč vč. DPH)
SAMSUNG MEDISON RS85 Prestige - digitální barevný ultrazvukový přístroj třídy Premium	1	1 564 623,20	1 564 623,20	328 570,87	1 893 194,07
SAMSUNG MEDISON 1-7 MHz širokopásmová konvexní sonda (CA1-7S)	1	150 800,00	150 800,00	31 668,00	182 468,00
SAMSUNG MEDISON 2-14 MHz širokopásmová lineární sonda (LA2-14A)	1	148 200,00	148 200,00	31 122,00	179 322,00
SAMSUNG MEDISON 4-18 MHz širokopásmová lineární sonda (LA4-18B)	1	151 996,00	151 996,00	31 919,16	183 915,16
SAMSUNG MEDISON 2-9 MHz širokopásmová lineární sonda (LA2-9A)	1	151 996,00	151 996,00	31 919,16	183 915,16
Dodávka zařízení		1 000,00	1 000,00	210,00	1 210,00
Instalace / montáž zařízení, uvedení zařízení do provozu		1 000,00	1 000,00	210,00	1 210,00
Školení / instruktáž		1 000,00	1 000,00	210,00	1 210,00

Cena celkem (Kč bez DPH)	2 170 615,20
Cena celkem (Kč včetně DPH)	2 626 444,39

Cena služeb

Položka (popis položek)	Cena za 1 měsíc (Kč bez DPH)
Pravidelné bezpečnostně technické kontroly	225,00
Upgrade a update softwaru zařízení	112,50

Cena za 1 měsíc (Kč bez DPH)	337,50
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Příloha č. 3

Kontaktní údaje

Kupující				
Oblast	Jméno	Pracovní zařazení	Telefon	E-mail
Dodání a převzetí zařízení	[REDACTED]	Vedoucí Oddělení zdravotnické techniky	[REDACTED]	[REDACTED]
Školení / instruktáž		Vedoucí Oddělení zdravotnické techniky		
Odstraňování vad		Vedoucí Oddělení zdravotnické techniky		
PBTK		Vedoucí Oddělení zdravotnické techniky		
Upgrade a update softwaru		Vedoucí Oddělení zdravotnické techniky		
Prodávající				
Oblast	Jméno	Pracovní zařazení	Telefon	E-mail
Dodání a předání zařízení	[REDACTED]	Senior Business Manager	[REDACTED]	[REDACTED]
Školení / instruktáž		Senior Business Manager		
Odstraňování vad		Service Manager		
PBTK		Service Manager		
Upgrade a update softwaru		Service Manager		