

**PATIENT NAME:** [patient name]

**EXAM DATE:** [exam date] **AGE:** [age] **SEX:** [sex] **I.D.#:** [patient I.D.]

CT TRAUMA	<b>CHEST, ABDOMEN, PELVIS WITH CONTRAST</b>
CONSENT FORMS	Consent to Contrast Material Pregnancy Status Form (female patients) Medication Reconciliation Form (outpatients)
ORAL CONTRAST	NONE
IV CONTRAST	2.5 CC/SEC FOR 150 CC
POSITIONING	SUPINE, FEET FIRST, ARMS UP IF POSSIBLE CENTER AT STERNAL NOTCH REMOVE OR CONTAIN ALL CLOTHING SO THEY DON'T CATCH IN TABLE BREATH HOLD
SCOUT	S 70 / I 600, 120 KVP @ 10 MA AP S70 / I 600, 120 KVP @ 20 MA, LAT
TECHNIQUE - 16 SLICE	HELICAL; 2.5 MM; STD PLUS W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR SFOV - LG BODY/DFOV (FIT TO ANATOMY)  DELAY 50 SEC, SCAN FROM APICES OF LUNG THRU PELVIS
TECHNIQUE - 64 SLICE	HELICAL; 2.5 MM, STD PLUS W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR SFOV-LG BODY/DFOV FIT TO ANATOMY  DELAY 50 SEC, SCAN FROM APICES OF LUNG THRU PELVIS
TECHNIQUE – 128 SLICE	HELICAL; 2.5 MM, STD PLUS W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR, SFOV-LG BODY/DFOV (FIT TO ANATOMY)  DELAY 60 SEC, SCAN FROM APICES OF LUNG THRU PELVIS
TECHNIQUE – DELAYED <i>Only performed, if Trauma surgeon requests or see obvious bladder injury.</i>	HELICAL; 5.0 MM, STD W400/L40 KVP 120 @ 125 MA, 40% ASIR SFOV - LG BODY/DFOV (FIT TO ANATOMY)  4 MINUTE DELAY– SCAN KIDNEYS THROUGH BLADDER
RECONS	2.5 MM, LUNG W1400/-600 1.25 MM, STD, W1400/-600

	16 / 128 SLICE-1.25 MM/INT 0.625 MM STD W400/L40 16 / 128 SLICE-1.25 MM/INT 0.625 MM BONE W2500/250 (DMPR FOR BODY SAGITTAL SERIES AND SPINE) 64 SLICE-0.625 MM STD W400/L40 (DMPR) 64 SLICE-0.625 MM, BONE W2500/L250 (DMPR FOR BODY SAGITTAL SERIES & SPINE)
REFORMATIONS	CORONAL & SAGITTAL AVG 2.5MM/2.5 MM, W400/L40 SAGITTAL BONE – BONE AVG 0.4 MM THICK X 1.5 SPACING CHEST - CORONAL & SAGITTAL– AVG 2.5MM/2.5 MM ,W400/L40 CHEST -MIP LUNG AX- THICK MIP 6MM THICK X 3MM SPACING IN STD W1400/L-600
PACS	SCOUT 2.5 MM - CHEST/ABD/PEL W 2.5 MM - LUNG BONE SAG ABD COR & ABD SAG CHEST COR & CHEST SAG & AX LUNG MIP CHEST 1.25
CHARGE	CT CHEST, ABD, PELVIS WITH CONTRAST
REMARKS	SOMETIMES YOU HAVE TO POSITION AS BEST YOU CAN, WATCH FOR TUBES AND ATTACHED APPARATUS, SO NOTHING GETS PULLED OUT

<b>ONCOLOGY HYPERVASC. NEOPLASM</b>	<b>CT CHEST, ABDOMEN, PELVIS WITH CONTRAST</b>
INDICATIONS	COMMON HYPERVASCULAR TUMORS: RENAL, MELANOMA, CARCINOID, ISLET CELL, GASTRINOMA, INSULINOMA, THYROID, CHORIOCARCINOMA, HEMANGIOPERICYTOMA
	82-0298 Consent to Contrast Material 82-0540 Pregnancy Status Form (female patients) 82-8216 Medication Reconciliation Form (outpatients)
ORAL CONTRAST	ORAL PREP & 1 GLASS OF WATER ON TABLE BEFORE SCANNING
IV CONTRAST	3.5 - 4.0 CC/SEC FOR 100-150 CC/NS 50 CC PATIENTS UNDER 150 LBS USE 100 CC
POSITIONING	SUPINE; FEET FIRST; ARMS UP & OUT OF WAY; CENTER AT STERNAL NOTCH, INSPIRATION BREATH-HOLD
SCOUT	S 60 / I 500, 120 KVP @ 10 MA, AP & LAT
TECHNIQUE -16 SLICE ARTERIAL-MELANOMA & CARCINOID	HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA - 40% ASIR SFOV - LG BODY/DFOV - 36 CM (FIT TO ANATOMY)  SMART PREP AT CENTER OF AORTA 150HU SCAN FROM LUNG APICES THROUGH BLADDER
TECHNIQUE 16 SLICE - ARTERIAL - RENAL ETC	HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA - 40% ASIR SFOV - LG BODY/DFOV - 36 CM (FIT TO ANATOMY)  SMART PREP AT CENTER OF AORTA 150HU SCAN FROM LUNG APICES THROUGH LIVER
TECHNIQUE 16 SLICE - ARTERIAL - LIVER	HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA - 40% ASIR

	<p>SFOV - LG BODY/DFOV - 36 CM (FIT TO ANATOMY)</p> <p>SCAN TOP OF LUNG APICES THROUGH DIAPHRAM, THEN 15 SEC DELAY BEFORE SCANNING THROUGH LIVER.</p>
TECHNIQUE - 16 SLICE PORTAL VENOUS	<p>HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA - 40% ASIR SFOV - LG BODY/DFOV - 36 CM (FIT TO ANATOMY) DELAY 20 SEC SCAN TOP OF LIVER THRU BLADDER</p>
TECHNIQUE - 64 SLICE ARTERIAL-MELANOMA & CARCINOID	<p>HELICAL; 2.5 MM KVP 120 @ AUTO/SMART MA 40% ASIR, STD W400/L40 SFOV LG BODY/DFOV FIT TO ANATOMY</p> <p>SMART PREP AT CENTER OF AORTA 150 HU/NO GREATER THN 50 SEC DELAY SCAN FROM LUNG APICES THROUGH BLADDER</p>
TECHNIQUE - 64 SLICE - ARTEIRAL - RENAL ECT	<p>HELICAL; 2.5 MM KVP 120 @ AUTO/SMART MA STD W400/L40 40% ASIR SFOV-LG BODY/DFOV 36 CM (FIT TO ANATOMY)</p> <p>SMART PREP AT CENTER OF AORTA 150 HU/NO GREATER THAN 50 SEC DELAY SCAN FROM LUNG APICES THROUGH LIVER</p>
TECHNIQUE- 64 SLICE - ARTEIRAL – LIVER	<p>HELICAL; 2.5 MM KVP 120 @ AUTO/SMART MA STD W400/L40 40% ASIR SFOV-LG BODY/DFOV 36 CM (FIT TO ANATOMY)</p> <p>SMART PREP AT CENTER OF AORTA 150 HU SCAN TOP OF LUNG APICES THROUGH DIAPHRAM, THEN 25 SEC DELAY BEFORE SCANNING THROUGH LIVER.</p>
TECHNIUQE - 64 SLICE PORTAL VENOUS	<p>HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR SFOV-LG BODY/DFOV 36 CM (FIT TO ANATOMY)</p> <p>DELAY 70 SEC FROM START OF INJECTION SCAN TOP OF LIVER THRU BLADDER</p>
TECHNIQUE – 128 SLICE ARTERIAL MELANOMA &	<p>HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR,</p>

CARINOID	SFOV LG BODY/DFOV (FIT TO ANATOMY)  SMART PREP AT CENTER OF AORTA 150 HU/NO GREATER THAN 50 SEC DELAY SCAN FROM LUNG APICES THROUGH BLADDER
TECHNIQUE – 128 SLICE ARTERIAL- RENAL, ECT	HELICAL; 2.5 MM , STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR SFOV-LG BODY/DFOV (FIT TO ANATOMY)  DELAY 70 SEC FROM START OF INJECTION SCAN FROM LUNG APICES THROUGH LIVER
TECHNIQUE - 16/64/128 SLICE DELAY KIDNEYS	HELICAL; 5.0 MM, STD W400/L40 KVP 120 @ 125 MA - 40% ASIR DOSE REDUCTION SFOV - LG BODY/DFOV (FIT TO ANATOMY)  DELAY 5 MINUTES, SCAN THROUGH THE KIDNEYS AND BLADDER <b><u>ONLY FOR:</u></b> BLADDER CANCER, TRANSITIONAL CELL CANCER, URETERAL CANCER, NEW RENAL LESION <b><u>FOR PROSTATE CANCER,</u></b> SCAN THROUGH BLADDER ONLY
RECONS	16 /128 SLICE: 1.25 MM/INT 0.65 MM, STD W400/L40 (DMPR CHEST, VENOUS & ARTERIAL PHASE)  64 SLICE- 0.625 MM, STD W400/L40 (DMPR) 1.25 MM, STD W1400/L-600 2.5 MM, LUNG W1400/L-600
REFORMATIONS	ABD/PELVIS- CORONAL & SAGITTAL STD AVG 2.5MM/2.5MM, W400/L40 – ARTERIAL & VENOUS  CHEST - CORONAL & SAGITTAL STD AVG 2.5MM/2.5MM, W400/L40  CHEST -MIP LUNG AX- THICK MIP 6MM X 3MM IN STD W1400/L-600
PACS	SCOUT 2.5 MM ART/VEN 2.5 MM LUNG ABD COR & ABD SAG CHEST COR & CHEST SAG & AX LUNG MIP CHEST 1.25
CHARGE	CHEST/ABDOMEN/PELVIS WITH CONTRAST

REMARKS	ARTERIAL AND VENOUS ARE IN THE SAME SERIES
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<b>ONCOLOGY HYPOVASCULAR (NON- HYPERVASCULAR) NEOPLASM</b>	<b>CT CHEST, ABDOMEN, PELVIS WITH CONTRAST</b>
INDICATIONS	USE HYPERVASCULAR PROTOCOL UNLESS TUMOR IS ON HYPOVASCULAR LIST AS FOLLOWS: GIST, LUNG, COLORECTAL TUMORS, BREAST LESIONS, SARCOMA & MERKEL CELL, ECT
CONSENT FORMS	82-0298 Consent to Contrast Material 82-0540 Pregnancy Status Form (female patients) 82-8216 Medication Reconciliation Form (outpatients)
ORAL CONTRAST	ORAL PREP & 1 GLASS OF WATER ON TABLE BEFORE SCANNING
IV CONTRAST	2.5 - 3.0 CC/SEC FOR 100-150 CC/NS 50 CC PATIENTS UNDER 150 LBS USE 100 CC
POSITIONING	SUPINE; FEET FIRST; ARMS UP & OUT OF WAY; CENTER AT STERNAL NOTCH, INSPIRATION BREATH-HOLD
SCOUT	S 60 / I 500, 120 KVP @ 10 MA, AP & LAT
TECHNIQUE - CHEST	HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR SFOV - LG BODY/DFOV (FIT TO ANATOMY)  SMART PREP ON AORTA AT LEVEL OF HEART 100 HU (NO GREATER THAN 50 SEC DELAY) SCAN FROM LUNG APICES TO LUNG BASES
TECHNIQUE - 16 SLICE PORTAL VENOUS	HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA - 40% ASIR SFOV - LG BODY/DFOV (FIT TO ANATOMY)  DELAY 30 SEC SCAN TOP OF LIVER THRU SYMPHYSIS PUBIS
TECHNIQUE - 64 SLICE 1ST GROUP CHEST	HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR,

	<p>SFOV LG BODY/DFOV (FIT TO ANATOMY)</p> <p>SMART PREP AT AORTA AT LEVEL OF HEART 100 HU/NO GREATER THAN 50 SEC DELAY SCAN THROUGH LUNGS</p>
<p>TECHNIQUE - <b>64 SLICE</b> 2ND GROUP-PORTAL VENOUS</p>	<p>HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR, SFOV LG BODY/DFOV (FIT TO ANATOMY)</p> <p>DELAY 70 SEC FROM START OF INJECTION SCAN TOP OF LIVER THRU BLADDER</p>
<p>TECHNIQUE- 128 SLICE CHEST</p>	<p>HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR SFOV LG BODY/DFOV (FIT TO ANATOMY)</p> <p>SMART PREP AT AORTA AT LEVEL OF HEART 100 HU/NO GREATER THAN 50 SEC DELAY SCAN THROUGH LUNGS</p>
<p>TECHNIQUE- 128 SLICE PORTAL VENOUS</p>	<p>HELICAL; 2.5 MM, STD W400/L40 KVP 120 @ AUTO/SMART MA 40% ASIR, SFOV LG BODY/DFOV (FIT TO ANATOMY)</p> <p>DELAY 70 SEC FROM START OF INJECTION SCAN TOP OF LIVER THRU BLADDER</p>
<p>TECNHIQUE - DELAYED</p>	<p>HELICAL; 5.0 MM, STD W400/L40 KVP 120 @ 125 MA - 40% ASIR SFOV - LG BODY/DFOV (FIT TO ANATOMY)</p> <p>DELAY 5 MINUTES, SCAN THROUGH THE KIDNEYS AND BLADDER <b><u>ONLY FOR:</u></b> BLADDER CANCER, TRANSITIONAL CELL CANCER, URETERAL CANCER, NEW RENAL LESION <b><u>FOR PROSTATE CANCER,</u></b> SCAN THROUGH BLADDER ONLY.</p>
<p>RECONS</p>	<p>16 /128 SLICE: 1.25 MM/INT 0.65 MM, STD W400/L40 (DMPR CHEST &amp; ABD PELVIS) <b>64 SLICE</b>-0.625 MM, STD W400/L40 (DMPR)</p> <p>2.5 MM, LUNG W1400/L600 1.25 MM, STD W1400/-600 (CHEST 1.25)</p>
<p>REFORMATIONS</p>	<p>CHEST &amp; ABD/PELVIS- CORONAL &amp; SAGITTAL AVG</p>

	CHEST -MIP LUNG AX- THICK MIP 6MM X 3MM IN STD W1400/L-600
PACS	SCOUT 2.5 MM - CHEST/ABD/PEL W 2.5 MM - LUNG ABD COR & ABD SAG CHEST COR & CHEST SAG & AX LUNG MIP CHEST 1.25
CHARGE	CHEST/ABDOMEN/PELVIS WITH CONTRAST
REMARKS	



CT PREPS	All CT contrast patients should be NPO for 4 hours before their exam. All patients should drink plenty of water before their exam
Routine Abdomen and Pelvis	<p><b>For:</b> Diverticulitis, pain, pancreatitis, appendicitis, elevated labs or cancer (not for adrenal, liver, GIST, stromal, or pancreas cancer).</p> <p><b>Outpatients:</b> Patients are to receive one 50 ml bottle of Omni 140, consent form, and prep sheet.  Patient to mix Omni 140 50 cc into 32 oz water.  Drink half the mixture 2 hours prior to exam.  Drink last half of mixture 1 hour prior to exam</p> <p><b>Inpatients:</b> Mix Omni 140 50 cc into 32 oz of water.  Drink half of mixture two hours prior to exam.  Drink last half of mixture one hour prior to exam.</p> <p><b>ER patients:</b> only if doctor requests-  Mix Omni 140 50 cc into 32 oz of water-  Drink half of mixture an hour prior to exam.  Drink last half of mixture 30 minutes prior to exam</p>
Abdomen CT's	<p><b>For Stomach (stromal) cancer, small bowel evaluation, GIST, stomach mass, Crohn's.</b></p> <p>Patients receive 2 bottles of Volumen.  Drink one bottle 2 hours prior to exam.  Drink one bottle 1 hour prior to exam.</p> <p><b>For CT Enterography:</b> Patients should arrive 1.5 hours early to drink Volumen prep. Drink one bottle of Volumen every 20 minutes for the hour before their exam.</p>
Gastric Bypass Protocol	<p><b>For:</b> Patients who have had gastric bypass.  Mix Omni 140 50 cc into 32 oz of water-  Patients to drink 8 oz mixture of Omni 140 and water an hour before exam. The second dose (8oz) of mixture will be given just before getting on the table.</p>
Pancreas Evaluations	<p><b>For:</b> Mass, cysts, recurrent pancreatitis, history of pancreatitis who has had a routine CT abdomen already done.  Patient to drink 64 oz of water the hour before their exam.</p>
All Triphase Renal/ Dual Adrenal/Dual Liver	<p><b>For:</b> Renal/Adrenal/Liver), mass, cyst, hepatitis C, and/or Adrenal/Liver Cancer.  Water prep.  Patients are to start drinking at least 64 oz of water the hour before their exam.</p> <p><b>For Renal Cancer follow-up:</b>  Mix Omni 140 50 cc into 32 oz of water-  Drink half of mixture two hours prior to exam.  Drink last half of mixture one hour prior to exam.</p>

UT/Urogram/Hernia/ Abdomen with/wo & pelvis with (GI vs stones)	For: Stone, hernia, hematuria Water prep

<b>Tumor Type</b>	<b>Common Tumors</b>	<b>C/A</b>	<b>C/A/P</b>	<b>A/P</b>
<b>Hypovascular</b> <b>*ROI- in aorta (Chest)</b> <b>*ROI- liver (Abd/Pelvis)</b>	<b>Lung</b> <b>Colorectal</b> <b>Breast/Ovarian/Uterine</b> <b>Prostate/Testicular</b> <b>GIST/Stomach/Sm Bowel</b> <b>Sarcoma</b> <b>Merkel Cell</b>	Arterial Chest Short Delay PV Abdomen LD delay A-bladder/transitional cell/ureteral cancer	Arterial Chest Short Delay PV A/P LD delay A/P-bladder/transitional cell/ureteral cancer Prostate cancer-	PV A/P LD delay A/P-bladder/transitional cell/ureteral cancer Prostate cancer-bladder only

	<b>Cholangiocarcinoma Etc...</b>  <i>ORAL PREP</i>		bladder only	
<b>Hypervascular</b>  <b>*ROI- in pulmonary artery(Chest)</b> <b>*ROI- in aorta (Abd/Pelvis)</b>	<b>Melanoma Carcinoid Neuroendocrine</b>  <i>ORAL PREP</i>	Arterial C/A PV Liver Only	Arterial C/A/P PV Liver Only	Arterial A/P PV Liver Only
<b>Hypervascular</b>  <b>*ROI- in pulmonary artery(Chest)</b> <b>*ROI- in aorta (Abd/Pelvis)</b>	<b>Renal Islet Cell Gastrinoma Insulinoma Choriocarcinoma Thyroid</b>  <i>ORAL PREP</i>	Arterial C/Liver PV Abdomen	Arterial C/Liver PV A/P	Arterial Liver only PV A/P
	<b>Pancreas Pancreatic neuroendocrine</b>  Water prep	Arterial C Pancreas protocol: late art pancreas PV Abd	Arterial C Pancreas protocol: late art pancreas PV A/P	Pancreas protocol 4cc/sec inject
	<b>Hepatocellular CA- water prep</b> "Liver Cancer" "Hep C & Cirrhosis w/ mass seen" Water prep	Chest rarely ordered Art Liver PV C/A Delay Liver	Chest rarely ordered Art Liver PV C/A/P Delay Liver	Multiphase Liver protocol (often w/o P) 4 -5 cc/sec inject for 150cc Delay Liver

**Note:**

**LD- low dose    C-chest    A-abdomen    P – pelvis    PV- portal venous phase**  
**Art- arterial phase    Hypovascular- Non hypervascular**