Routine Adult Chest-Abdomen-Pelvis CT Protocol

Indications (include but are not limited to)
- Evaluation of known or suspected masses or fluid collections in chest, abdomen and pelvis
- Diagnosis of malignancies, primary, or metastatic, including melanoma
- Trauma
- Evaluation of inflammatory processes in chest, abdomen, and pelvis
- Evaluation of lymphadenopathy above and below the diaphragm
- Work up of fever or suspected abscess
- Evaluation of ascites or effusions
- Evaluation of vascular abnormalities such as aortic aneurysm
- Identification of locations of shunts/tubes/catheters that may cross the diaphragm

For reference, see ACR–SPR Practice Guideline for the Performance of Computed Tomography (CT) of the Abdomen and Computed Tomography (CT) of the Pelvis

Diagnostic Tasks (include but are not limited to)
- Detect nodules or soft tissue masses and determine sizes and shape and relationships to organs
- Identify air outside the normal lung anatomy or intestinal tract
- Detect nodules or soft tissue masses adjacent to vascular structures
- Detect calcifications in abnormal locations or in organs
- Characterize soft tissue edema, fluid collections, or ascites
- Detect abnormalities that extend above and below the diaphragm

Key Elements

Contrast
- **Oral**: Per radiologist.
- **Injected**: Certain indications require administration of intravenous contrast media.
- Intravenous contrast enhancement should be performed as directed by the supervising radiologist using appropriate injection protocols and in accordance with the ACR-SPR Practice Guideline for the Use of Intravascular Contrast Media and the ACR Manual on Contrast Media.
- In some circumstances, an additional scan may be needed after a delay period in order to visualize contrast enhancement that, due to physiological reasons, appears somewhat later. Sites should consider performing this delayed phase scan with reduced scan parameters (lower dose).

Scan mode & Patient Positioning
- Scanning should be performed in helical mode.
- Patient supine, arms above head.

CT Localizer Radiograph
- Center the patient within the gantry; this is critical for proper functioning of AEC systems.
- If the patient is not sufficiently centered in the vertical direction, substantial magnification or minification can affect the appearance of the anterior-posterior or posterior-anterior CT localizer radiograph, which in turn can affect the accuracy of the AEC system performance (the scanner may be fooled into thinking the patient is either larger or smaller than he/she actually is).
- Confirming that the table height is correct for each patient should be part of the routine workflow, whenever feasible (e.g. checking vertical height using a lateral CT localizer radiograph).
- When vertically centering a patient with an unusual body habitus in the gantry, it is recommended that the liver region be positioned at the gantry center, as this is typically the most challenging region for diagnostic interpretation.

- If the patient table height is adjusted, the CT localizer radiograph should be repeated so that the AEC system will use an accurate representation of the patient position and size.
- Users need to know whether or not the order in which the CT localizer radiographs are acquired will affect the technique factors, and hence radiation dose, in subsequent scans. In most scanners, only the CT localizer radiograph acquired immediately preceding the scan is used for AEC technique calculations (whether anterior-posterior/posterior-anterior or lateral). In other scanners, both the anterior-posterior/posterior-anterior and lateral CT localizer radiographs are considered, if both are present. Of particular importance, the orientation in which the CT localizer radiograph was acquired (anterior-posterior vs. posterior-anterior vs. lateral) will affect the AEC technique on some scanners. Thus, AEC settings may need to be adjusted based on the orientation of the CT localizer radiograph in order to achieve consistent levels of image quality or noise.
- Each manufacturer has unique nomenclature and operating characteristics for their AEC system(s). Users must be very familiar with how the AEC systems on their particular scanners operate. See the Educational Slides tab at http://www.aapm.org/pubs/CTProtocols/ for additional information regarding the specific details of each manufacturer's AEC system.

Scan Range – CT localizer radiograph and longitudinal scan range

- The CT localizer radiograph should extend beyond the anticipated scan range in the superior-inferior direction. If a helical (or axial) scan acquisition extends beyond the superior or inferior edge of the CT localizer radiograph, the AEC system may use unexpected technique values in that region due to missing patient information. This may compromise image quality or use unnecessarily high doses.
- A typical scan range extends from the top of the lungs to either the iliac crest or pubic symphysis, depending on the clinical indications.
- Scan only the indicated regions. Images of the neck region or below the pubic symphysis are typically NOT required and can add substantially to the patient's exposure.

Suspension of Respiration

- Patient should be instructed to hold his/her breath at end of inspiration during both the CT localizer radiograph and during the entire scan, recognizing that for some patients this may not be feasible. When the patient is unable to hold his/her breath over the entire scan duration, the scan should be performed in the cranial to caudal direction such that the chest region is scanned first. Breathing motion is less problematic below the diaphram.

Additional Image Reconstructions

- Certain indications may require that images be reconstructed in coronal and/or sagittal planes.
- High-resolution (i.e. thin) images may be reconstructed from the helical data set to provide an additional set of thin images. A sharp reconstruction filter is often used for these images, especially for the chest region.
- Very thin axial images (approximately ≤ 1 mm) may need to be reconstructed to serve as source images for the sagittal and/or coronal reformatted images.
- Creation, use, and archival of these (very thin) additional images are at the discretion of the supervising radiologist and/or departmental policy. Very large datasets may result from these additional reconstructions.

Radiation Dose Management

- Automatic Exposure Control (AEC) should be used whenever possible.
- Users need to pay careful attention to the values selected to define the desired level of image quality (e.g., Noise Index, Quality Reference mAs, Standard Deviation).

- Each manufacturer will have recommendations unique to their systems and system features. Be sure to work with your CT equipment manufacturer and a qualified medical physicist to ensure safe and appropriate operation of AEC systems.

CTDI measurements and calculations

- Some manufacturers utilize a z-axis "flying focal spot", in which two unique projections are acquired at the same z-axis table position. The CTDIvol displayed on the scanner console accurately accounts for use of this feature.

Single or Split Acquisition

Examination of the chest, abdomen and pelvis can be performed as one long scan acquisition (a single "beam-on" event) from the top of the chest to the bottom of the pelvis, or in shorter scan segments by scanning one or more regions separately, such as scanning the chest separate from a combined abdomen-pelvis scan. There are distinct advantages to each approach. The best approach for a specific exam should be decided by the supervising radiologist, taking into account the specific patient and exam indication, as well as the technical capabilities of the CT scanner to be used.

Characteristic to be considered	Single Acquisition	Split Acquisition
X-ray tube load	May be too high for some patient/scanner combinations	Can more readily accommodate larger patients
AEC	Usually a single image quality parameter is required for the entire scan range (future scanner models may allow for different image quality settings in each region)	Image quality and radiation dose can be customized for each region of the exam (chest, abdomen or pelvis)
Anatomic discontinuities	Not an issue – a single acquisition guarantees smooth transitions between each region of the exam (chest, abdomen or pelvis) in axial, coronal, and sagittal views	May be some anatomic discontinuities at the boundaries of the different regions (chest, abdomen or pelvis) in axial and reformatted images; reformatted image sets might be split between regions
IV contrast timing	May require a compromise of IV contrast injections protocols to accommodate all regions (chest, abdomen or pelvis)	IV contrast injection protocols can be tailored for optimal enhancement in each region (chest, abdomen or pelvis)
Scan (exposure) overlap	Not an issue	Overlap of scan regions results in an increase in overall radiation exposure
Exam splitting for interpretation by different radiologists	May require CT technologist to manually split the exam according to the interpreting radiologist	Exam splitting is likely to be a more efficient process if acquisitions are tailored to address this need
Breath hold	May be too difficult for patients to hold their breath during the entire acquisition interval, resulting in some motion artifacts	It is likely easier for most patients to perform a separate breath hold for each separate acquisition event

Approximate Volume CT Dose Index (CTDIvol) Values

- **Split Acquisition** - Approximate values for CTDIvol are listed for three different patient sizes using a split acquisition scan approach:

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

- **Single Acquisition** - If scanned together, the resulting CTDIvol values reported by the scanner should be roughly in this range:

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

The dose values for the single acquisition approach are estimated; these values represent an average of the scan technique over the entire scan range. It is rarely appropriate to add the chest and abd/pelvis CTDIvol values together directly; summing CTDIvol values is appropriate only for multiple passes over identical anatomical regions (such a dual-phase liver).

The approximate CTDIvol values are for reference only and represent a dose to the CT Dose Index phantom under very specific conditions. The CTDIvol displayed on the scanner for a patient of a given size should be similar, but not necessarily an exact match, to those listed in the above table. The provided values are all based on the 32-cm diameter “body” CTDI phantom.

It is essential that users recognize that the CTDIvol values reported on the user console prior to acquiring CT localizer radiographs on a particular patient do not represent the CTDIvol that will be delivered during that patient’s scan. CT systems rely on the CT localizer radiograph to 1) estimate the patient’s size, 2) determine the tube current settings for each tube angle and table position that will yield the requested level of image quality, and 3) calculate the average CTDIvol for the patient over the prescribed scan range. Until the CT localizer radiograph is acquired, the reported CTDIvol is not patient-specific, but is based on an assumed generic patient size, which may differ between manufacturers.

The CTDIvol values provided here are approximate, and are intended only to provide reference ranges for the user to consider. They are for a routine CT of an adult’s chest/abdomen/pelvis for the general indications given at the beginning of this document. Other indications or diagnostic tasks may have different image quality and dose requirements, and hence reasonable ranges of CTDIvol may differ according to those requirements.

In this document, a small patient is considered to be approximately 50-70 kg (110-155 lbs), an average patient approximately 70-90 kg (155-200 lbs), and a large patient 90-120 kg (200-265 lbs). However, weight is not a perfect indication of patient size. A person’s height, gender and distribution

of weight across the body also must be taken into account. The thickness of the body over the area to be scanned is the best indication of patient size. Body mass index (BMI) may also be considered:

- Underweight = BMI <18.5
- Normal weight = BMI of 18.5–24.9
- Overweight = BMI of 25–29.9
- Obesity = BMI of 30 or greater

It is recognized that the median (50^{th} percentile) patient size for adults in the USA is larger than 70 kg. However, the 70 kg patient represents the “Reference Man”, as defined by the International Commission on Radiation Protection (ICRP), upon which AEC systems and tissue weighting factors (used for effective dose estimation) are based.

INDEX OF ADULT ROUTINE ABDOMEN-PELVIS PROTOCOLS (by manufacturer)

CHEST, ABDOMEN & PELVIS ROUTINE (Selected GE scanners)

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SINGLE ACQUISITION

SCOUT: AP, S60-I600 if automatic exposure control is used. PA scout if manual mA is used. Lateral scout optional.

GE	LightSpeed Pro 16***	LightSpeed VCT (w/ASIR) **	Discovery CT750 HD (w/ASIR) **
Scan Type	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.5
Detector Configuration	16 x 1.25 mm (20 mm, 4i)	64 x 0.625 mm (40 mm, 8i)	64 x 0.625 mm (40 mm, 8i)
Pitch	1.375	1.375	1.375
Table Feed/Interval (mm)	27.5	55.0	55.0
kV	120	120	120
Average mA	350	260	300
Auto-mA range	100-650	50-670	100-750
Noise Index (NI)*	11.57	22 (DR 50%)	35.42
SFOV	Large	Large	Large
ASiR	none	SS50	SS50

RECON 1

Plane	Axial	Axial; DMPR create thick Sag/Cor reformat	Axial; DMPR create thick Sag/Cor reformat
Algorithm	Stnd	Stnd	Stnd
Recon Mode	Plus	Plus	Plus
Thickness (mm)	5	0.625	0.625
Interval (mm)	5	0.625	0.625
ASiR	none	SS50	SS50

RECON 2

Plane	Axial	Axial; DMPR create thick Sag/Cor reformat	Axial; DMPR create thick Sag/Cor reformat
Algorithm	Stnd	Lung	Lung
Recon Mode	Plus	Plus	Plus
Thickness (mm)	1.25	0.625	0.625
Interval (mm)	0.625	0.625	0.625
ASiR	none	SS50	SS50

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

RECON 3

Plane	Axial	Axial	Axial
Algorithm	Lung	Stnd	Stnd
Recon Mode	Plus	Plus	Plus
Thickness (mm)	1.25	5	5
Interval (mm)	0.625	5	5
ASiR	none	SS50	SS50

RECON 4

Plane	Axial	Axial	Axial
Algorithm	Lung	Lung	Lung
Recon Mode	Plus	Plus	Plus
Thickness (mm)	≤5	≤5	≤5
Interval (mm)	≤5	≤5	≤5
ASiR	none	SS50	SS50

*Operator-selected noise index and primary image reconstruction thickness will both strongly impact both CTDIvol and patient dose. [See: Kanal KM et al. Impact of Operator-Selected Image Noise Index and Reconstruction Slice Thickness on Patient Radiation Dose in 64-MDCT. *AJR* 2007; 189: 219-225.]

** These protocols are running direct multi-planar reconstruction (DMPR) on Recon 1 and Recon 2 to automatically create thicker Sagittal and Coronal reformatted images. Thicker axial images are created in Recon 3 and Recon 4. User could define Reformats for Axial, Sagittal and Coronal in DMPR at image thicknesses specified in the Reformat protocol selected, usually 3-5mm.

***LightSpeed Pro16, Recon 4 would need to be done in Retro Recon. Recon 2 and 3 used in Reformat to create Sag/Cor images at 3-5mm thick.

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

CHEST, ABDOMEN & PELVIS ROUTINE (selected GE scanners)

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SPLIT ACQUISITION

SCOUT: AP, S60-I600 if automatic exposure control is used. PA scout if manual mA is used. Lateral scout optional.

GE	LightSpeed Ultra (8)	BrightSpeed 16 Select	LightSpeed 16 BrightSpeed 16
Scan Type	Helical	Helical	Helical
Rotation Time (s) **(Chest/Abd-Pelvis)**	0.6/0.6	0.8/0.8	0.5/0.5
Detector Configuration	8 x 1.25 mm (10 mm, 2i)	16 x 1.25 mm (20 mm, 4i)	16 x 1.25 mm (20 mm, 4i)`
Pitch **(Chest/Abd-Pelvis)**	1.35/1.35	1.375/0.938	1.375/1.375
Table Feed/Interval (mm) **(Chest/Abd-Pelvis)**	13.5/13.5	27.5/18.75	27.5/27.5
kV	120	120	120
Average mA **(Chest/Abd-Pelvis)**	200/250	125/170	200/300
Auto-mA range	50-440	50-350	100-440
Noise Index (NI)* **(Chest/Abd-Pelvis)**	13/11.57	13/12	13/11.57
SFOV	Large	Large	Large

RECON 1

Plane	Axial	Axial	Axial
Algorithm	Stnd	Stnd	Stnd
Recon Mode	Plus	Plus	Plus
Thickness (mm)	5	5	5
Interval (mm)	5	5	5

RECON 2

Plane	Axial	Axial	Axial
Algorithm	Lung	Lung	Lung
Recon Mode	Plus	Plus	Plus
Thickness (mm)	≤5	≤5	≤5
Interval (mm)	≤5	≤5	≤5

RECON 3

Plane	**Axial	**Axial	**Axial
Algorithm	Stnd	Stnd	Stnd
Recon Mode	Plus	Plus	Plus
Thickness (mm)	1.25	1.25	1.25
Interval (mm)	1.25	1.25	0.625

*Operator-selected noise index and primary image reconstruction thickness will both strongly impact both CTDIvol and patient dose. [See: Kanal KM et al. Impact of Operator-Selected Image Noise Index and Reconstruction Slice Thickness on Patient Radiation Dose in 64-MDCT. *AJR* 2007; 189: 219-225.]

**Use Reformat to create Sag/Cor reformatted images 3-5mm thick using images from Recon 3.

Additional Retro Reconstructions may be needed to create thin images to create Sag/Cor reformats in Lung algorithm.

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

CHEST, ABDOMEN & PELVIS ROUTINE (selected GE scanners)

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SPLIT ACQUISITION

SCOUT: AP, S60-I600 if automatic exposure control is used. PA scout if manual mA is used. Lateral scout optional.

SPLIT ACQUISITION– **group 1 Chest, group 2 Abdomen/Pelvis**

These protocols are built with direct multi-planar reconstruction (DMPR) running on Recon 2 and Recon 3 to automatically create Sagittal and Coronal reformats 3-5mm thick.

GE	LightSpeed VCT**	Discovery CT750 HD**	LightSpeed VCT (w/ASIR)**	Discovery CT750 HD (w/ASIR)**
Scan Type	Helical	Helical	Helical	Helical
Rotation Time (s) **(Chest/Abd-Pelvis)**	0.5/0.5	0/5/0.5	0.5/0.5	0.4/0.5
Detector Configuration	64 x 0.625 mm (40 mm, 8i)	64 x 0.625 mm (40 mm, 8i)	64 x 0.625 mm (40 mm, 8i)	64 x 0.625 mm (40 mm, 8i)
Pitch **(Chest/Abd-Pelvis)**	0.984/1.375	0.984/1.375	0.984/1.375	0.984/1.375
Table Feed/Interval (mm) **(Chest/Abd-Pelvis)**	39.37/55	39.37/55	39.37/55.0	39.37/55.0
kV	120	120	120	120
Average mA **(Chest/Abd-Pelvis)**	300/370	300/400	260/300	250/300
Auto-mA range	100-650	100-750	50-670	100-500
Noise Index (NI)* **(Chest/Abd-Pelvis)**	13.0/13.0	13.80/12.65	22 (DR 50%)/ 18 (DR 50%)	22.93/ 19.32
SFOV	Large	Large	Large	Large
ASiR	None	None	SS50	SS50

RECON 1 – group 1 & 2

Plane	Axial	Axial	Axial	Axial
Algorithm	Stnd	Stnd	Stnd	Stnd
Recon Mode	Plus	Plus	Plus	Plus
Thickness (mm)	5	5	5	5
Interval (mm)	5	5	5	5
ASiR	None	None	SS50	SS50

RECON 2

Plane	Axial DMPR create thicker Sag/Cor reformats–group 1 & 2	Axial DMPR create thicker Sag/Cor reformats-group 1 & 2	Axial DMPR create thicker Sag/Cor reformats-group 1 & 2	Axial DMPR create thicker Sag/Cor reformats-group 1 & 2
Algorithm	Stnd	Stnd	Stnd	Stnd
Recon Mode	Plus	Plus	Plus	Plus
Thickness (mm)	0.625	0.625	0.625	0.625
Interval (mm)	0.625	0.625	0.625	0.625
ASiR	None	None	SS50	SS50

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

RECON 3				
Plane	Axial DMPR create thicker Sag/Cor reformats- group 1	Axial DMPR create thicker Sag/Cor reformats – group 1	Axial DMPR create thicker Sag/Cor reformats – group1	Axial DMPR create thicker Sag/Cor reformats – group1
Algorithm	Lung	Lung	Lung	Lung
Recon Mode	Plus	Plus	Plus	Plus
Thickness (mm)	0.625	0.625	0.625	0.625
Interval (mm)	0.625	0.625	0.625	0.625
ASiR	None	None	SS50	SS50

RECON 4 – group 1 only				
Plane	Axial	Axial	Axial	Axial
Algorithm	Lung	Lung	Lung	Lung
Recon Mode	Plus	Plus	Plus	Plus
Thickness (mm)	≤5	≤5	≤5	≤5
Interval (mm)	≤5	≤5	≤5	≤5

*Operator-selected noise index and primary image reconstruction thickness will both strongly impact both CTDIvol and patient dose. See: Kanal KM et al. Impact of Operator-Selected Image Noise Index and Reconstruction Slice Thickness on Patient Radiation Dose in 64-MDCT. *AJR* 2007; 189: 219-225.

** These protocols are running direct multi-planar reconstruction (DMPR) on Recon 1 and Recon 2 to automatically create thicker slice Sagittal and Coronal reformats in Standard and Lung in 3-5mm thickness. Thicker Axial images in Standard and Lung are created in Recon 1 and Recon 4. User could define Reformats for Axial, Sagittal and Coronal in DMPR at slice thickness specified in the Reformat protocol selected usually 3-5mm.

DMPR can be set up group by group opposed to the groups being combined. For reformats of the lung, only group one would be selected to create reformats from.

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

CHEST, ABDOMEN & PELVIS ROUTINE (selected HITACHI scanners)

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SINGLE ACQUISITION

SCANOGRAM: PA, scan from above apices to below Pubic symphysis.

HITACHI	CXR4	ECLOS 16	SCENARIA 64
Scan Type	Volume	Volume	Volume
Rotation Time (s)	0.8	0.8	0.75
Detector Configuration	2.5 mm x 4	1.25 mm x 16	0.625 mm x 64
Pitch	1.25	1.0625	0.828
Speed (mm/rot)	12.5	21.25	33.125
kV	120	120	120
mA	Adaptive mA (225)	IntelliEC (250)	IntelliEC (250)
Adaptive mA/IntelliEC	YES	SD-15	SD-15
SFOV	500	500	500

RECON 1

Series Description	Ch, Abd Pelvis Routine	Ch, Abd Pelvis Routine	Ch, Abd Pelvis Routine
Type	Volume	Volume	Volume
Algorithm	Abd/Mediastinum 4	Abd/Mediastinum 32	Abd/Mediastinum 32
Thickness (mm)	5	5	5
Interval (mm)	5	5	5

RECON 2

Series Description	Thins for MPR	Thins for MPR	Thins for MPR
Type	Volume	Volume	Volume
Algorithm	Abd STD 4	Abd STD 32	Abd STD 31c*
Thickness (mm)	2.5	1.25	1.0
Interval (mm)	1.25	0.625	0.5

RECON 3

Series Description	Thin for lung	Thin for lung	Thin for lung
Type	Axial	Axial	Axial
Algorithm	Lung 9	Lung 23	Lung 23
Thickness (mm)	2.5	1.25	1.0
Interval (mm)	1.25	0.625	0.5

mA values in parentheses represent max mA limits. ***c denotes iterative reconstruction level (from a-e)**

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

CHEST, ABDOMEN & PELVIS ROUTINE (selected HITACHI scanners)

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SPLIT ACQUISITION

SCANOGRAM: PA, scan from above apices to below Pubic symphysis.

HITACHI	CXR4	ECLOS 16	SCENARIA 64
Arterial Chest			
Scan Type	Volume	Volume	Volume
Rotation Time (s)	0.8	0.8	0.75
Detector Configuration	2.5 mm x 4	1.25 mm x 16	0.625 mm x 64
Pitch	1.25	1.0625	0.828
Speed (mm/rot)	12.5	21.25	33.125
kV	120	120	120
mA	Adaptive mA (200)	Intelli EC(200)	Intelli EC (200)
Adaptive mA/IntelliEC	YES	SD-15	SD-18
SFOV	500	500	500
Portal Venous for AP			
Scan Type	Volume	Volume	Volume
Rotation Time (s)	0.8	0.8	0.8
Detector Configuration	2.5mm x 4	1.25 x 16	0.625 x 64
Pitch	1.25	1.0625	0.828
Speed (mm/rot)	12.5	21.25	33.125
kV	120	120	120
mA	Adaptive mA (250)	Intelli EC (250)	Intelli EC (250)
Adaptive ma/Intelli EC	YES	SD-12	SD-15
SFOV	500	500	500
RECON 1			
Series Description	Ch, Abd Pelvis Routine	Ch, Abd Pelvis Routine	Ch, Abd Pelvis Routine
Type	Axial	Axial	Axial
Algorithm	Abd/Mediastinum 4	Abd/Mediastinum 32	Abd/Mediastinum 32
Thickness (mm)	5	5	5
Interval (mm)	5	5	5
RECON 2			
Series Description	Thins for MPR	Thins for MPR	Thins for MPR
Type	Axial	Axial	Axial
Algorithm	Abd STD 4	Abd STD 32	Abd STD 31c*
Thickness (mm)	2.5	1.25	1.0
Interval (mm)	1.25	0.625	0.5
RECON 3			
Series Description	Thin for lung	Thin for lung	Thin for lung
Type	Axial	Axial	Axial
Algorithm	Lung 9	Lung 23	Lung 23
Thickness (mm)	2.5	1.25	1.0
Interval (mm)	1.25	0.625	0.5

mA values in parentheses represent max mA limits. ***c denotes iterative reconstruction level (from a-e)**

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

CHEST, ABDOMEN & PELVIS ROUTINE (selected Neusoft scanners)

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SINGLE ACQUISITION

SURVIEW: PA, 650mm (Adjust to cover: 2cm above shoulders through pubic symphysis). LAT scout is optional but encouraged.

NEUSOFT	NeuViz64i	NeuViz64e	NeuViz 16
Scan Type	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.6
Collimation	64 x 0.625**	64 x 0.625**	16 x 1.5 mm
kVp	120	120	120
Reference mAs	150	150	250
Pitch	1.4	1.4	0.8631
DFOV (mm)	350	350	350
Resolution	Standard	Standard	Standard
Dose Modulation	O-Dose	O-Dose	ACS & DOM
ClearView	50%	50%	N/A
RECON 1: ABD/PELVIS			
Type	Axial	Axial	Axial
Filter	F20	F20	SB
Thickness (mm)	5	5	5
Increment (mm)	5	5	5
RECON 2: Chest			
Type	Lung	Lung	Lung
Filter	Lung20	Lung20	Lung B
Thickness (mm)	5	5	5
Increment (mm)	5	5	5
RECON 3: ABD/PELVIS			
Type	Thins for MPR	Thins for MPR	Thins for MPR
Filter	F20	F20	SB
Thickness (mm)	1	1	2
Increment (mm)	0.5	0.5	1
RECON 4: CHEST			
Type	Thins for MPR	Thins for MPR	Thins for MPR
Filter	Lung20	Lung20	Lung B
Thickness (mm)	1	1	2
Increment (mm)	0.5	0.5	1

** Indicates that a z-axis “flying focal spot” technique is used to obtain twice as many projections as detector rows. Simultaneous x-y deflection is also incorporated

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

CHEST, ABDOMEN & PELVIS ROUTINE (selected Neusoft scanners)

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SPLIT ACQUISITION

SURVIEW: PA, 650mm (Adjust to cover: 2cm above shoulders through pubic symphisis). LAT scout is optional but encouraged.

CHEST	NeuViz64i	NeuViz64e	NeuViz 16
Scan Type	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.6
Collimation	64 x 0.625**	64 x 0.625**	16 x 1.5 mm
kVp	120	120	120
Reference mAs	110	110	200
Pitch	1.4	1.4	0.8631
DFOV (mm)	350	350	350
Resolution	Standard	Standard	Standard
Dose Modulation	O-Dose	O-Dose	ACS & DOM
ClearView	50%	50%	N/A

ABDOMEN/PELVIS

	NeuViz64i	NeuViz64e	NeuViz 16
Scan Type	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.6
Collimation	64 x 0.625**	64 x 0.625**	16 x 1.5 mm
kVp	120	120	120
Reference mAs	150	150	250
Pitch	1.4	1.4	0.8631
DFOV (mm)	350	350	350
Resolution	Standard	Standard	Standard
Dose Modulation	O-Dose	O-Dose	ACS & DOM
ClearView	50%	50%	N/A
Filter	F20	F20	SB
Thickness (mm)	1	1	2
Increment (mm)	.5	.5	1
RECON 1- Abd/Pelvis			
Type	Axial	Axial	Axial
Filter	F20	F20	SB
Thickness (mm)	5	5	5
Increment (mm)	5	5	5
RECON 2- Chest			
Type	Axial	Axial	Axial
Filter	Lung 20	Lung 20	Lung B
Thickness (mm)	5	5	5
Increment (mm)	5	5	5

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

RECON 3- Abd/Pelvis			
Type	Thins for MPR	Thins for MPR	Thins for MPR
Filter	F20	F20	SB
Thickness (mm)	1	1	5
Increment (mm)	0.5	0.5	5
RECON 4 - Chest			
Type	Thins for MPR	Thins for MPR	Thins for MPR
Filter	Lung 20	Lung 20	Lung B
Thickness (mm)	1	1	5
Increment (mm)	0.5	0.5	5

**Indicates that a z-axis “flying focal spot” technique is used to obtain twice as many projections as detector rows. Simultaneous x-y deflection is also incorporated.

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

CHEST, ABDOMEN & PELVIS ROUTINE (selected PHILIPS scanners)

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SINGLE ACQUISITION

SURVIEW: AP, 500 mm length (or adjusted to patient size), starting at top of shoulder (feet first) or pubic symphysis (head first).

PHILIPS	Brilliance 16	Brilliance 64	Ingenuity CT	Brilliance iCT SP	Brilliance iCT
Scan Type	Helical	Helical	Helical	Helical	Helical
Rotation Time (s)	0.75	0.75	0.75	0.5	0.5
Collimation	16 × 1.5 mm	64 × 0.625 mm	64 × 0.625 mm	64 × 0.625 mm	128 × 0.625 mm
Coverage (mm)	24	40	40	40	80
kV	120	120	120	120	120
mAs (mAs/slice) @ water equivalent diameter	DoseRight (200 mAs @ 33 cm Reference), ZDOM	DoseRight (200 mAs @ 33 cm Reference), ZDOM	DoseRight (200 mAs @ 33 cm Reference OR 200 mAs @ DRI = 24)*, 3D Modulation	DoseRight (180 mAs @ 33 cm Reference,OR 180 mAs @ DRI = 23, 29 cm ref)*-, 3D Modulation	DoseRight (180 mAs @ 33 cm Reference OR 180 mAs @ DRI = 23, 29 cm ref), 3D Modulation
DoseRight ACS	ON	ON	ON	ON	ON
Pitch	1	1	1.1	1.2	1.0
FOV (mm)	350-500	350-500	350-500	350-500	350-500
SP Filter	Yes	Yes	Yes	Yes	Yes
Adaptive Filter	Yes	Yes	Yes	Yes	Yes
Resolution Setting	Standard	Standard	Standard	Standard	Standard
RECON 1					
Type	Axial	Axial	Axial	Axial	Axial
Filter	B/C	B/C	B/C	B/C	B/C
Thickness (mm)	5	5	5	5	5
Increment (mm)	5	5	5	5	5
RECON 2					
Type	Axial	Axial	Axial	Axial	Axial
Filter	YA	YB	YB	YB	YB
Thickness (mm)	2	0.9	0.9	0.9	0.9
Increment (mm)	1	0.45	0.45	0.45	0.45
RECON 3					
Type	Coronal	Coronal	Coronal	Coronal	Coronal
Filter	YA	YB	YB	YB	YB
Thickness (mm)	3	3	3	3	3
Increment (mm)	3	3	3	3	3

*Dose Right Index (DRI) and 3D (x,y and z) modulation are available on scanner models with the iPatient interface. Recommend use of ZDOM, which enables z-direction tube current modulation, for other scanner models.

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

CHEST, ABDOMEN & PELVIS ROUTINE (selected PHILIPS scanners)

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SPLIT ACQUISITION

SURVIEW: AP, 500 mm length (or adjusted to patient size), starting at top of shoulder (feet first) or pubic symphysis (head first).

Chest	Brilliance 16 slice	Brilliance 64 slice	Ingenuity CT	Brilliance iCT SP	Brilliance iCT
Scan Type	Helical	Helical	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.4	0.33	0.33
Collimation	16 × 1.5 mm	64 × 0.625 mm	64 × 0.625 mm	64 × 0.625 mm	128 × 0.625 mm
Coverage (mm)	24	40	40	40	80
kV	120	120	120	120	120
mAs (mAs/slice) @ water equivalent diameter	DoseRight (140 mAs @ 33 cm reference), ZDOM	DoseRight (140 mAs @ 33 cm reference), ZDOM	DoseRight (140 mAs @ 33 cm reference OR 143 mAs @ DRI = 21)*, 3D Modulation	DoseRight (125 mAs @ 33 cm reference, OR 125 mAs @ DRI = 20, 29 cm ref.)* 3D Modulation	DoseRight (125 mAs @ 33 cm reference, OR 125 mAs @ DRI = 20, 29 cm ref.)* 3D Modulation
Pitch	1.0	1.0	1.1	1.2	1.0
FOV (mm)	350–500	350–500	350–500	350–500	350–500

Abdomen/Pelvis	Brilliance 16	Brilliance 64	Ingenuity CT	Brilliance iCT SP	Brilliance iCT
Scan Type	Helical	Helical	Helical	Helical	Helical
Rotation Time (s)	0.75	0.5	0.75	0.5	0.5
Collimation	16 × 1.5 mm	64 × 0.625 mm	64 × 0.625 mm	64 × 0.625 mm	128 × 0.625 mm
Coverage (mm)	24	40	40	40	80
kV	120	120	120	120	120
mAs (mAs/slice) @ water equivalent diameter	DoseRight (200 mAs @ 33 cm reference), ZDOM	DoseRight (200 mAs @ 33 cm reference), ZDOM	DoseRight (200 mAs @ 33 cm Reference OR 200 mAs @ DRI = 24)*, 3D Modulation	DoseRight (180 mAs @ 33 cm reference, OR 180 mAs @ DRI = 23, 29 cm ref.)*, 3D Modulation	DoseRight (180 mAs @ 33 cm reference, OR 180 mAs @ DRI = 23, 29 cm ref.)*, 3D Modulation
DoseRight ACS	ON	ON	ON	ON	ON
Pitch	0.93	0.75	1.0	1.17	1.0
SP Filter	Yes	Yes	Yes	Yes	Yes
Adaptive Filter	Yes	Yes	Yes	Yes	Yes
Resolution Setting	Standard	Standard	Standard	Standard	Standard

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

RECON 1 - Chest

Type	Axial	Axial	Axial	Axial	Axial
Filter	B/C	B/C	B/C	B/C	B/C
Thickness (mm)	3	3	3	3	3
Increment (mm)	3	3	3	3	3

RECON 2 - All

Type	Coronal	Coronal	Coronal	Coronal	Coronal
Filter	B/C	B/C	B/C	B/C	B/C
Thickness (mm)	3	3	3	3	3
Increment (mm)	3	3	3	3	3

RECON 3 - All

Type	Axial	Axial	Axial	Axial	Axial
Filter	YA	YB	YB	YB	YB
Thickness (mm)	2	0.9	0.9	0.9	0.9
Increment (mm)	1	0.45	0.45	0.45	0.45

RECON 4 - All

Type	Coronal	Coronal	Coronal	Coronal	Coronal
Filter	YA	YB	YB	YB	YB
Thickness (mm)	2	1	1	1	1
Increment (mm)	2	1	1	1	1

RECON 5 Abdomen/Pelvis

Type	Axial	Axial	Axial	Axial	Axial
Filter	B/C	B/C	B/C	B/C	B/C
Thickness (mm)	5	5	5	5	5
Increment (mm)	5	5	5	5	5

*Dose Right Index (DRI) and 3D (x,y and z) modulation are available on scanner models with the iPatient interface
Recommend us of ZDOM, which enables z-direction tube current modulation, for other scanner models.

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

ADULT ROUTINE CHEST ABDOMEN PELVIS CT (selected SIEMENS scanners)

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SINGLE ACQUISITION

SIEMENS	Sensation 16	Sensation 64	Definition (dual source, 64-slice)	Definition AS (128-slice)	Definition Flash (dual source, 128-slice)
Software version	VB30	VB30	VA34	VA44	VA44
Scan mode	Spiral	Spiral	Spiral	Spiral	Spiral
Tube voltage (kV)*	120	120	120	120	120
Qual. Ref. mAs (QRM)	200	200	210	210/150***	210/150***
Rotation time (s)	0.5	0.5	0.5	0.5	0.5
Acq. (Detector Configuration)	16 x 1.5 mm	**64 × 0.6 mm (32 x 0.6 mm = 19.2 mm)	**64 × 0.6 mm (32 x 0.6 mm = 19.2 mm)	**128 × 0.6 mm (64 x 0.6 mm = 38.4 mm)	**128 × 0.6 mm (64 x 0.6 mm = 38.4 mm)
Pitch	0.8	1.4	0.6	0.6	0.6
Dose modulation	CARE Dose4D	CARE Dose4D	CARE Dose4D	CARE Dose4D	CARE Dose4D
RECON 1					
Kernel	B30f	B30f	B30f	B30f/I30f***	B30f/I30f***
Slice (mm)	5	5.0	5.0	5.0	5.0
Slice increment (mm)	5	5.0	5.0	5.0	5.0
RECON 2					
Kernel	B20f	B20f	B20f	B20f/I26f***	B20f/I26f***
Slice (mm)	1.0	1.0	1.0	1.0	1.0
Slice increment (mm)	0.7	0.7	0.7	0.7	0.7
RECON 3					
Kernel	B31f	B31f	B31f	B31f/I31f***	B31f/I31f***
Slice (mm)	5	5.0	5.0	5.0	5.0
Slice increment (mm)	5	5.0	5.0	5.0	5.0
RECON 4					
Kernel	B70f	B70f	B70f	B70f/I70f***	B70f/I70f***
Slice (mm)	5	5.0	5.0	5.0	5.0
Slice increment (mm)	5	5.0	5.0	5.0	5.0
RECON 5					
Kernel	B31f	B31f	B31f	B31f/I31f***	B31f/I31f***
Slice (mm)	1.5	1.0	1.0	1.0	1.0
Slice increment (mm)	1.0	0.7	0.7	0.7	0.7
RECON 4					
Kernel	B70f	B70f	B70f	B70f/I70f***	B70f/I70f***
Slice (mm)	1.5	1.0	1.0	1.0	1.0
Slice increment (mm)	1.0	0.7	0.7	0.7	0.7

Typically the abdomen protocol is adjusted to cover an extended range for the single acquisition CAP.

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

ADULT ROUTINE CHEST ABDOMEN PELVIS CT (selected SIEMENS scanners)

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SPLIT ACQUISITION

CHEST	Sensation 16	Sensation 64	Definition (Dual source 64-slice)	Definition AS+ (128-slice)	Definition Flash (Dual source
Software version	VB30	VB30	VA34	VA44	VA44
Scan Mode	Spiral	Spiral	Spiral	Spiral	Spiral
Rotation Time (s)	0.5	0.5	0.5	0.5	0.5
Detector Configuration	16 x 1.5mm	**64 × 0.6 mm (32 x 0.6 mm = 19.2 mm)	**64 × 0.6 mm (32 x 0.6 mm = 19.2 mm)	**128 × 0.6 mm (64 x 0.6 mm = 38.4 mm)	**128 × 0.6 mm (64 x 0.6 mm = 38.4 mm)
Pitch	1.15	1.4	1.2	1.2	1.2
kV*	120	120	120	120	120
Quality ref. mAs	100	100	110	110/65***	110/65***
Dose Modulation	CARE Dose4D	CARE Dose4D	CARE Dose4D	CARE Dose4D	CARE Dose4D

ABDOMEN/PEVLIS	Sensation 16	Sensation 64	Definition (dual source, 64-slice)	Definition AS (128-slice)	Definition Flash (dual source, 128-slice)
Software version	VB30	VB30	VA34	VA44	VA44
Scan mode	Spiral	Spiral	Spiral	Spiral	Spiral
Tube voltage (kV)*	120	120	120	120	120
Qual. Ref. mAs (QRM)	200	200	210	210/150***	210/150***
Rotation time (s)	0.5	0.5	0.5	0.5	0.5
Acq. (Detector Configuration)	16 x 1.5 mm	**64 × 0.6 mm (32 x 0.6 mm = 19.2 mm)	**64 × 0.6 mm (32 x 0.6 mm = 19.2 mm)	**128 × 0.6 mm (64 x 0.6 mm = 38.4 mm)	**128 × 0.6 mm (64 x 0.6 mm = 38.4 mm)
Pitch	0.8	1.4	0.6	0.6	0.6
Dose modulation	CARE Dose4D	CARE Dose4D	CARE Dose4D	CARE Dose4D	CARE Dose4D

RECON 1 - Chest

Type	Axial	Axial	Axial	Axial	Axial
Kernel	B31f	B31f	B31f	B31f/I31f***	B31f/I31f***
Slice (mm)	5	5	5	5	5
Increment (mm)	5	5	5	5	5

RECON 2 – Chest

Type	Axial	Axial	Axial	Axial	Axial
Kernel	B70f	B70f	B70f	B70f/I70f***	B70f/I70f***
Slice (mm)	5	5	5	5	5
Increment (mm)	5	5	5	5	5

RECON 3 - Chest

Type	Axial	Axial	Axial	Axial	Axial
Kernel	B31f	B31f	B31f	B31f/I31f***	B31f/I31f***
Slice (mm)	1.5	1.0	1.0	1.0	1.0
Increment (mm)	0.7	0.7	0.7	0.7	0.7

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

RECON 4 – Chest

Type	Axial	Axial	Axial	Axial	Axial
Kernel	B70f	B70f	B70f	B70f/I70f***	B70f/I70f***
Slice (mm)	1.5	1.0	1.0	1.0	1.0
Increment (mm)	0.7	0.7	0.7	0.7	0.7

RECON 5 Abdomen/Pelvis

Kernel	B30f	B30f	B30f	B30f/I30f***	B30f/I30f***
Slice (mm)	5	5.0	5.0	5.0	5.0
Slice increment (mm)	5	5.0	5.0	5.0	5.0

RECON 6 Abdomen/Pelvis

Kernel	B20f	B20f	B20f	B20f/I26f***	B20f/I26f***
Slice (mm)	1.0	1.0	1.0	1.0	1.0
Slice increment (mm)	0.7	0.7	0.7	0.7	0.7

* If scanner is equipped with automatic kV selection (CARE kV), this should be activated by selecting “On”.

- For non-contrast-enhanced exams, a Reference kV of 120 and a “Dose saving optimized for” slider position of 3 is recommended.
- For contrast-enhanced exams, a Reference kV of 120 and a “Dose saving optimized for” slider position of 7 is recommended.
- For exams requiring both a non-contrast-enhanced and a contrast-enhanced scan, where the change in mean CT number of a region may be relevant to the diagnosis, it is important that the kV be the same for both scans. You can force CARE kV to use the same kV by linking the series. The optimization is then done by considering all linked acquisitions and their individual slider settings.

** Indicates that a z-axis “flying focal spot” technique is used to obtain twice as many projections per rotation as detector rows.

*** With SAFIRE and a strength setting of 3

Images generated from Recons 3, 4 and 6 are typically used as source images for reformatted views (sagittal and coronal).

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

ADULT ROUTINE CAP (selected TOSHIBA scanners)

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SINGLE ACQUISITION

SCANOGRAM: Dual scano: PA and LAT; 500 mm above shoulders to below iliac crest.

TOSHIBA	Aq32	Aq64	AqPRIME	AqPremium	AqONE
Arterial Chest/Abdomen Pelvis					
Scan Type	Helical	Helical	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.5	0.5	0.5
Detector Configuration	32 x 0.5	64 x 0.5	80 x 0.5	80 x 0.5	80 x 0.5
Pitch	Std (0.844)	Std (0.828)	Std (0.813)	Std (0.813)	Std (0.813)
Speed (mm/rot)	13.5	26.5	32.5	32.5	32.5
kV	120	120	120	120	120
mA	SURE Exposure	SURE Exposure	SURE Exposure	SURE Exposure	SURE Exposure
SURE Exposure	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)
Minimum & Maximum mA	80 & 500	80 & 500	80 & 500	80 & 500	80 & 500 80 & 700**
SFOV	LFOV	LFOV	LFOV	LFOV	LFOV
Breath-hold	Inspiration	Inspiration	Inspiration	Inspiration	Inspiration

RECON 1

Type	Axial	Axial	Axial	Axial	Axial
SURE IQ setting	Body Std Axial	Body Std Axial	Body Std Axial	Body Std Axial	Body Std Axial
Thickness (mm)	5	5	5	5	5
Interval (mm)	5	5	5	5	5
DFOV (cm)	400	400	400	400	400

VOLUME

Type	Axial	Axial	Axial	Axial	Axial
SURE IQ setting	Body Std Volume	Body Std Volume	Body Std Volume	Body Std Volume	Body Std Volume
DFOV (cm)	400	400	400	400	400

	REFORMAT 1	REFORMAT 2
Type	Coronal	Sagittal
Thickness (mm)	5	5
Interval (mm)	5	5

*The SURE IQ setting determines the reconstruction FC as well as other post-processing and reconstruction options, such as AIDR. The SURE IQ settings listed in this document refer to the manufacturer's default settings.

** Applies to the AqONE Vision Edition model only.

	Approx. Weight (kg)	Approx. Weight (lbs)	Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	7-16
Average Patient	70-90	155-200	11-24
Large Patient	90-120	200-265	14-34

ADULT ROUTINE CAP (selected TOSHIBA scanners)

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SPLIT ACQUISITION

SCANOGRAM: Dual scano: PA and LAT; 500 mm above shoulders to iliac liver.

TOSHIBA	Aq32	Aq64	AqPRIME	AqPremium	AqONE
Arterial Chest					
Scan Type	Helical	Helical	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.5	0.5	0.5
Detector Configuration	32 x 0.5	64 x 0.5	80 x 0.5	80 x 0.5	80 x 0.5
Pitch	Fast (1.41)	Fast (1.48)	Fast (1.388)	Fast (1.388)	Fast (1.388)
Speed (mm/rot)	22.56	47.36	55.50	55.50	55.50
kV	120	120	120	120	120
mA	SUREExposure	SUREExposure	SUREExposure	SUREExposure	SUREExposure
SUREExposure	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)
Minimum & Maximum mA	80 & 500	80 & 500	80 & 500	80 & 500	80 & 500 80 & 700**
SFOV	LFOV	LFOV	LFOV	LFOV	LFOV
Breath-hold	Inspiration	Inspiration	Inspiration	Inspiration	Inspiration
Portal Venous for Abdomen					
Scan Type	Helical	Helical	Helical	Helical	Helical
Rotation Time (s)	0.5	0.5	0.5	0.5	0.5
Detector Configuration	32 x 0.5	64 x 0.5	80 x 0.5	80 x 0.5	80 x 0.5
Pitch	Std (0.844)	Std(0.828)	Std (0.813)	Std (0.813)	Std (0.813)
Speed (mm/rot)	22.56	13.5	26.5	32.5	32.5
kV	120	120	120	120	120
mA	SUREExposure	SUREExposure	SUREExposure	SUREExposure	SUREExposure
SUREExposure	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)	Std (SD = 12.5)
Minimum & Maximum mA	80 & 500	80 & 500	80 & 500	80 & 500	80 & 500 80 & 700**
SFOV	LFOV	LFOV	LFOV	LFOV	LFOV
Breath-hold	Inspiration	Inspiration	Inspiration	Inspiration	Inspiration
Prep Delay (s)	65	65	65	65	65

RECON 1

Type	Axial	Axial	Axial	Axial	Axial
SUREIQ setting	Body Std Axial	Body Std Axial	Body Std Axial	Body Std Axial	Body Std Axial
Thickness (mm)	5	5	5	5	5
Interval (mm)	5	5	5	5	5
DFOV (cm)	400	400	400	400	400

RECON 2

Type	Axial	Axial	Axial	Axial	Axial
SUREIQ setting	Lung Std Axial	Lung Std Axial	Lung Std Axial	Lung Std Axial	Lung Std Axial
Thickness (mm)	5	5	5	5	5
Interval (mm)	5	5	5	5	5
DFOV (cm)	400	400	400	400	400

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35

VOLUME

Type	Axial	Axial	Axial	Axial	Axial
SURE IQ setting	Body Std Volume	Body Std Volume	Body Std Volume	Body Std Volume	Body Std Volume
DFOV (cm)	400	400	400	400	400

** Applies to the AqONE Vision Edition model only.

	Approx. Weight (kg)	Approx. Weight (lbs)	CHEST Approx. CTDIvol (mGy)	ABD/PELVIS Approx. CTDIvol (mGy)
Small Patient	50-70	110-155	6-11	10-17
Average Patient	70-90	155-200	10-18	15-25
Large Patient	90-120	200-265	13-23	22-35