



ZKUŠENOSTI SE SOFTWAREM MEDSQUARE RADIATION DOSE MONITOR Z POHLEDU DOHLÍŽEJÍCÍ OSOBY

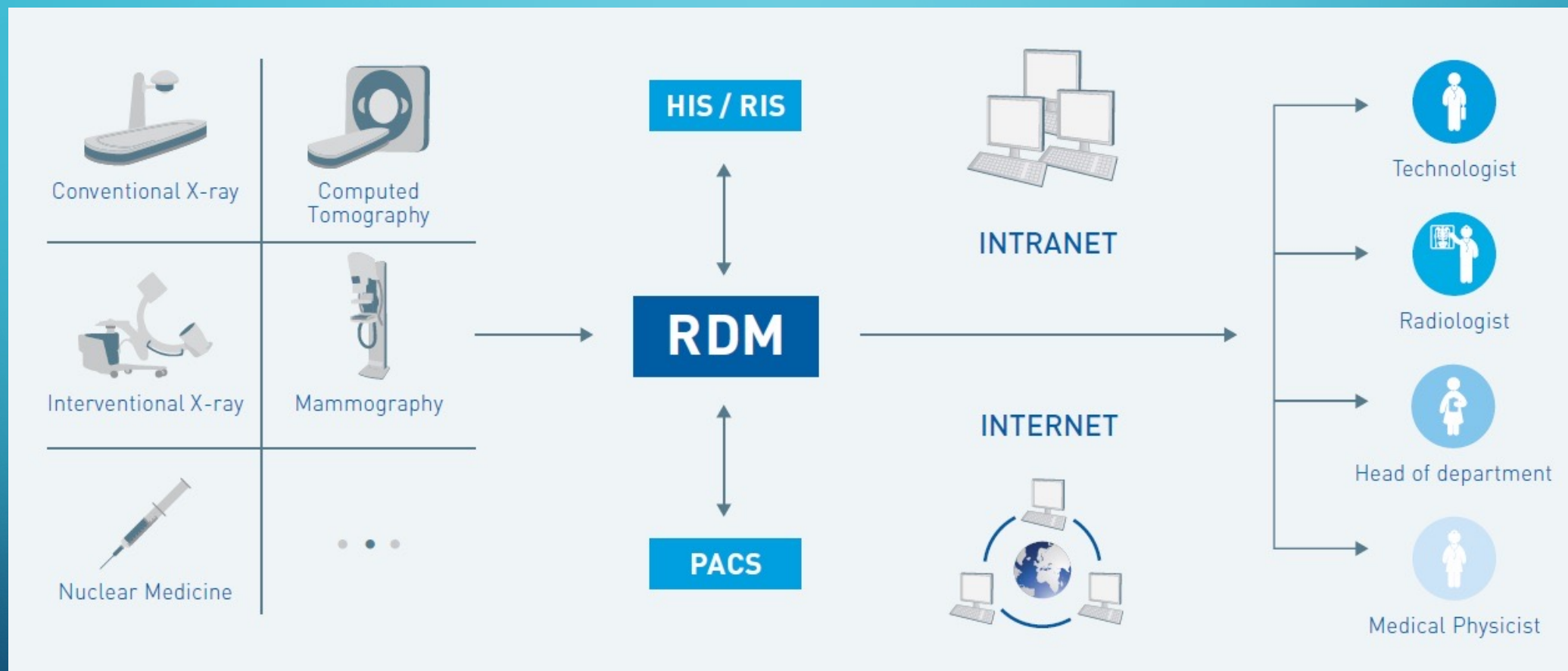
ING. JOLANA BRÓZDOVÁ

NEMOCNICE AGEL OSTRAVA – VÍTKOVICE A.S.

FOMEI S.R.O.

MEDSQAURE RADIATION DOSE MONITOR (RDM)

- specializovaný software pro evidenci a analýzu patientských dávek
- komunikuje v protokolech DICOM a HL7 s PACS a NIS
- získává informace o dávce přímo z modalit nebo častěji komunikací s PACS
- získává z NIS informace o aktualizaci údajů pacientů
- odesílá do NIS systému informace o dávce
- uživatelé systému se přihlašují k RDM serveru pomocí webového prohlížeče



HLAVNÍ CHARAKTERISTIKY

- Monitorování vyšetření v reálném čase a pokročilý více-stupňový systém nastavení alertů při překročení dávky na základě nastavených MDRÚ
- Zobrazení všech informací ve vztahu k pacientovi, vyšetření nebo zařízení
- Možnost vyhledávání a filtrování podle klíčových slov (např. srdce, mozek) pro eliminaci rozdílů v názvech vyšetření z různých modalit
- Dávková mapa pro zobrazení dávky na kůži při intervenčním vyšetření, včetně vývoje dávky v čase
- Výpočet skutečné dávky pro CT vyšetření podle habitu pacienta (SSDE)
- Pokročilé statistické metody pro analýzu dat a optimalizaci dávek
- Jednoduchá identifikace všech vyšetření a vyšetřovacích protokolů, které vykazují abnormality z hlediska dávky
- Možnost verifikace výstrahy jedním kliknutím
- Kompletní export všech dat a analýz v XLS/PDF formátu

INSTALACE V NEMOCNICI AGEL OSTRAVA-VÍTKOVICE

- RDM původně pořízeno pouze pro jednu modalitu – Philips Azurion, pro zobrazení dávkové mapy vyšetření
- V další etapě rozšířeno na celo-nemocniční verzi.
- RDM je instalován v datovém centru AGEL, napojený na centrální PACS AGELu, ze kterého stahuje data, prozatím pouze z modalit instalovaných v AGEL Vítkovice.
- Každá modalita se musí v systému validovat, což provádí dodavatel

AKTUÁLNĚ PŘIPOJENÉ MODALITY

Acquisition Modalities					Admin
	Contains: Station Name	Contains: Description	Contains: Manufacturer	Contains: Institution Name	
	722228-33	Philips Azurion 5	Philips	Nemocnice AGEL Ostrava-Víř	Copy the Rights
	ARTIS159151 EmptyStationName	Siemens Axiom Artis	Siemens	Nemocnice AGEL Ostrava-Víř	Copy the Columns
	CombiDiagnosR90 EmptyStationNa..	Philips CombiDiagnost R90	Philips	Nemocnice AGEL Ostrava-Víř	Check All Uncheck All
	CT-IQON EmptyStationName	Philips CT-IQON	Philips	Nemocnice AGEL Ostrava-Víř	☒ Alerts
	DD-C90PLICNI	Philips DiDi C90 Plicni RTG	Philips	Nemocnice AGEL Ostrava-Víř	☒ Today
	DIDI01	Philips DiDi C90 Centrální RTG	Philips	Nemocnice AGEL Ostrava-Víř	☒ Search
	DiDiDR04	Philips DiDi R04 Chir. ambulance	Philips	Nemocnice AGEL Ostrava-Víř	☒ Stats
	Dimensions	HologicDimensions	HOLOGIC, Inc.	Nemocnice AGEL Ostrava-Víř	☒ Worklist
	fpd0	FUJI FDR GO 1 (FPD0)	FUJIFILM Corporation	Nemocnice AGEL Ostrava-Víř	☒ Edit
	fpd1	FUJI FDR GO 2 (VASK. JIP)	FUJIFILM Corporation	Nemocnice AGEL Ostrava-Víř	☒ Assign to Procedure
	HOST-336017 EmptyStationName	Philips Ingenuity Core 128	Philips	Nemocnice AGEL Ostrava-Víř	☒ Export
	INNOVA	GE Innova	GE MEDICAL SYSTEMS	Nemocnice AGEL Ostrava-Víř	☒ Documents
					☒ Acquisition Modality's Documents

JAK SYSTÉM FUNGUJE KONFIGURAČNÍM PROSTŘEDÍ ?

- RDM má pro každou modalitu a vyšetření nastavené výstrahy-alerty.
- Tyto výstrahy si nastavuje oprávněný uživatel přes své konfigurační prostředí.
- Výstrahy jsou 2-úrovňové
 - 1. úroveň odpovídá MDRÚ/NDRÚ
 - 2. druhá úroveň je nastavována individuálně – 2násobek MDRÚ/NDRÚ
- Výstrahu lze podmínit různými parametry, podle DICOM dat získaných z každé modality.

Procedures / Protocols

Institution:
Nemocnice AGEL Ostrava-Vítkovice

Location:

Acquisition Modality:
Philips CT-IQON (CT-IQON|EmptyStationName) - CT

Default Alert Rules

Procedure

Protocol

☐ Non Assigned ☐ Assigned ☒ All ☐ Filtered Mode

Merge Dissociate

Procedure Code Value	Procedure Description	Studies	Region	Validated	Alias	Auto. Rules
	AORTA CELA	17	Chest Abdomen Pelvis	☒	AORTA CELA CTA cele aorty	☒
	AORTA TH	3	Chest	☒	AORTA TH	☐
	BIOPSIE	12	Chest	☒	BIOPSIE	☐
	BRICHO	696	Abdomen Pelvis	☒	BRICHO BRICHO 3 FAZE BRICHO NATIV CT bricha a panve nativne a s KL i.v.	☐
	CTKAL	64	Chest	☒	CALCIOVE SKORE CTKAL KALCIOVE SCORE	☐
	CTKAL -KOR	2	Chest	☒	CTKAL -KOR	☐
	DKK	175	Abdomen Pelvis	☒	CTA DKK DKK	☐
	DRENAZ	6	Abdomen	☒	DRENAZ	☐
	ENTEROGRAFIE	5	Abdomen	☒	ENTEROGRAFIE	☐
	HKK	5	Upper Limbs	☒	CTA HKK HKK	☐
	HRUD+BRICHO	266	Chest Abdomen	☒	CT hrudniku a bricha nativne a s KL i.v. HRUD+BRICHO	☐
	HRUDNIK	429	Chest	☒	CT hrudnika HRCT plic HRUDNIK HRUDNIK NATIV	☐
	KAROTIDY	21	Neck	☒	KAROTIDY	☐
	KOLONOGRAFIE	15	Abdomen Pelvis	☒	KOLONOGRAFIE	☐
	KRK	9	Neck	☒	KRK	☐
	MOZEK	1391	Head	☒	CT mozku Ct mozku nativ CT mozku nativne CT mozku nativne a s KL i.v. MOZEK MOZEK KONTR. ESTROKE	☐
	MOZEK+KAROTIDY	255	Head	☒	MOZEK+KAROTIDY	☐
	MOZEK+PERFUZE+KAROTIDY	260	Head	☒	Mozek nativ, mozкова perfuze a CTA karotid MOZEK+PERFUZE+KAROTIDY	☐
	OBSTRIK	65	Abdomen Pelvis	☒	OBSTRIK OZON	☐
	PATER C	25	Neck	☒	PATER C	☐

Export

Save Refresh

Dose values for MOZEK - Total DLP (mGy.cm)

Min: 1,5
P25: 506,62
P50: 573,62
P75: 662,62
Max: 2792,20

1274 Studies

☐ Activate Automatic alert rules definition

Studies period
3 Month

Trigger
Every 1 Month

Alert type:

Percentile level 1

Percentile level 2

Delete

Alert Rules

Default:

Acquisitions Rules:
DLP (mGy.cm): [Level 1: 1100] [Level 2: 2200]
CTDIvol (mGy): [Level 1: 65] [Level 2: 130]

Edit Alert Rules

Close

Templates:

General Comment:

Default +

Alert Rule Type

Alert Rule Type	Level 1 Value	Level 2 Value	Field 1	Condition	Value	Field 2	Condition	Value
DLP (mGy.cm)	1100	2200						
CTDIvol (mGy)	65	130						
DLP (mGy.cm)	Click here to add a new Alert Rule							
CTDIvol (mGy)								
SSDE (mGy)								
Scanning Length (mm)								
Phantom 16 cm - DLP (mGy.cm)								
Phantom 16 cm - CTDIvol (mGy)								

Templates:

General Comment:

Default +

Study Alert Rules

Alert Rule Type

Acquisitions Alert Rules

Alert Rule Type	Level 1 Value	Level 2 Value	Field 1	Condition	Value	Field 2	Condition	Value
Average Glandular Dose (mGy)	1.1	2.2	Compression Thickness (mm)	Is greater	0	Compression Thickness (mm)	Is less or equal	23
Average Glandular Dose (mGy)	1.3	2.6	Compression Thickness (mm)	Is greater	23	Compression Thickness (mm)	Is less or equal	34
Average Glandular Dose (mGy)	1.6	3.2	Compression Thickness (mm)	Is greater	34	Compression Thickness (mm)	Is less or equal	47
Average Glandular Dose (mGy)	1.8	3.6	Compression Thickness (mm)	Is greater	47	Compression Thickness (mm)	Is less or equal	55
Average Glandular Dose (mGy)	2.1	4.2	Compression Thickness (mm)	Is greater	55	Compression Thickness (mm)	Is less or equal	62
Average Glandular Dose (mGy)	2.5	5	Compression Thickness (mm)	Is greater	62	Compression Thickness (mm)	Is less or equal	77
Average Glandular Dose (mGy)	3	6	Compression Thickness (mm)	Is greater	77			

[Click here to add a new Alert Rule](#)

Procedures / Protocols

Institution:

Nemocnice AGEL Ostrava-Vítkovice

Location:

Acquisition Modality:

FUJI FDR GO 1 (FPD0) (fpd0) - DX

Default Alert Rules

Procedure

Protocol

☐ Non Assigned ☒ Assigned ☐ All☐ Filtered Mode

Merge

Dissociate

Procedure Code Value	Procedure Description	Studies	Region	Validated	Alias	Auto. Rules
	Plice na lůžku vleže	313	Chest		MILVUE_ABNORMAL MILVUE_DOUBT MILVUE_NORMAL Plíce na lůžku vleže Plíce na lůžku vleže, Zebra leva Plíce na lůžku vleže, Zebra prave Plíce vleže RTG hrudniku RTG P+S RTG plíc RTG S+P RTG srdce plíce S+P	

Min: 5.58

P25: 15.14

P50: 18.7

P75: 26.64

Max: 160.59

☐ Activate

Studies period

3

Month

Trigger

Every

1

Month

Total DAP A (cGy.cm²)

Default:

Conditions 1:

Weight: [Min: 50] [Max: 90]

Acquisitions Rules:

DAP (cGy.cm²): [Level 1: 22] [Level 2: 44]

Conditions 2:

Weight: [Min: 91] [Max: 120]

Acquisitions Rules:

DAP (cGy.cm²): [Level 1: 44] [Level 2: 66]

Conditions 3:

Weight: [Min: 121] [Max: 200]

Acquisitions Rules:

DAP (cGy.cm²): [Level 1: 66] [Level 2: 88]

Procedures / Protocols

Institution:

Nemocnice AGEL Ostrava-Vítkovice

Location:

Acquisition Modality:

Philips Azurion 5 (722228-33) - XA

Default Alert Rules

Procedure

Protocol

☐ Non Assigned ☒ Assigned ☐ All☐ Filtered Mode

Merge

Dissociate

Procedure Code Value	Procedure Description	Studies	Region	Validated	Alias	Auto. Rules
SKG		416	Chest	☒	SKG	☐
PCI		141	Chest	☒	PCI	☐
PTA DKK		108	Lower Limbs	☒	EAT + PTA LDK EAT + PTA PDK EAT AFC + PTA AFS, APO I dx EAT AFC+PTA APO sin EAT AFC+PTA LDK EAT+PTA AFS I dx EAT+PTA berce LDK EAT+PTA LDK EAT+PTA PDK PTA AFS dx. PTA AFS I dx PTA AFS I sin PTA AFS I. dx. PTA AFS I. sin PTA AFS I.dx. PTA AFS L.SIN PTA AFS LDK PTA AFS PDK PTA AFS sin PTA AIE L.SIN. PTA APo I sin. PTA APo sin PTA berce LDK PTA BERCE sin PTA LDK PTA PDK rePTA AFS LDK rePTA LDK Trombectomie	☒

Min: 324.66

P25: 915.05

P50: 1243.94

P75: 2553.56

Max: 12019.6

☒ Activate

Studies period

6 Month

Trigger

Every

7

Days

Alert type:

Percentile level 1

Total DAP A (cGy.cm²)

75

95

Alert Rules generated automatically - 25.03.2023 5:00:38

Default:

Study Rules:

Total DAP A (cGy.cm²): [Level 1: 2914.3] [Level 2: 7375.37]

JAK SYSTÉM FUNGUJE V PROSTŘEDÍ UŽIVATELE

- Multi-kriteriální vyhledávání a filtrování dat jednak podle standardních atributů
- Zobrazení všech informací ve vztahu k pacientovi, vyšetření nebo konkrétní akviziční metodě
- Možnost připojení souboru k záznamu vyšetření
- Možnost vyhledávání a filtrování podle klíčových slov (např. název vyšetření)
- Mapa rozložení dávky na kůži pro intervenční vyšetření
- Výpočet orgánových dávek

Patient Name	Age	Sex	Weight			Alert Dose	E (mSv)	Total DLP (mGy.cm)	Total DLP 16 (mGy.cm)	Total DLP 32 (mGy.cm)	IR Events	DLP w/acq (mGy.cm)	CTDIvol w/acq (mGy)	Delta X Max (cm)	Delta Y Max (cm)	Delta XY Max (cm)	Contrast Product	Image Quality	Pregnancy Status	BMI	Procedure
Bar*****	042Y	M	75				4.92	291.50		291.50	3	91.79	2.24	1.87		1.87	Non-ionic			25.95	KOLONOGRAFIE
BAR*****	063Y	M	90				5.38	1196.62		1196.00	0.62	598.00	27.80	-0.68	-1.11	1.30				27.78	MOZEK
DEM*****	074Y	F	96				49.06	2870.20		2870.20	4	672.27	11.53				Non-ionic			37.5	BRICHO
GOS*****	074Y	M	65				32.92	1772.70		1772.70	4	461.28	7.55	1.07	1.59	1.92	Non-ionic			20.75	HRUD+BRICHO
Har*****	022Y	F	57				4.91	287.90		287.90	1	287.00	6.80	1.06	0.34	1.11	Non-ionic			26.02	BRICHO
Hav*****	054Y	F	72				27.51	1611.20		1611.20	4	378.62	7.50	0.59	-0.03	0.59	Non-ionic			26.13	BRICHO

Hru*****	064Y	M	108				39.83	1958.40		1958.40	4	337.99	35.45	-0.99	5.50	5.54	Iodine			32.60	CTKAL
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HUD*****	058Y	F	56				6.25	343.68		343.68	5	84.21	4.34	-1.20	1.01	1.56				19.84	BIOPSIE
JAN*****	082Y	M	70				2.34	520.62		520.00	0.62	520.00	24.80	-0.66	-0.69	0.96				26.35	MOZEK
Jez*****	075Y	M	82				10.22	1009.30		1005.30	4.00	236.30	18.33	0.14	-0.67	0.68	Non-ionic			23.96	KAROTIDY
Kas*****	058Y	F	54				2.31	513.62		513.00	0.62	513.00	25.40							21.09	MOZEK
Kli*****	045Y	M	96				2.34	520.62		520.00	0.62	520.00	24.80	0.38	1.28	1.34				28.98	MOZEK
Krp*****	030Y	F	71				10.04	989.00		986.50	2.50	220.32	13.86				Non-ionic			25.16	MOZEK+KAROTIDY
Kuc*****	071Y	F	55				3.66	183.30		183.30	4	28.76	10.32	0.29	1.22	1.26	Iodine			22.89	CTKAL
Mar*****	065Y	F	93				9.67	578.20		578.20	4	170.93	7.87	-3.72	-2.21	4.32				34.16	DRENAZ
Pis*****	080Y	F	78				2.52	559.62		559.00	0.62	559.00	27.70							29.00	MOZEK
Pla*****	065Y	M	102				42.40	2480.60		2480.60	4	589.20	14.83	0.96		0.96	Non-ionic			30.46	BRICHO
P*****	046Y	F	50				5.12	302.00		302.00	1	300.00	10.00	0.17	0.11	0.17				24.07	BRICHO

Acq. Number	KVP (kV)	E (mSv)	Acq. Protocol	Type	Description	Anatomy	Scanning Length (mm)	CTDIvol (mGy) Level 1: 30 Level 2: 45.00	SSDE (mGy)	DLP (mGy.cm) Level 1: 1000 Level 2: 1500	Phantom	Tube Current Mean (mA)	Tube Current Max (mA)	Collimation Single (mm)	Collimation Total (mm)	Pitch Factor (ratio)
2	120.00		HX KORO CTA /Cardiac	LOCALIZER		Entire body	301.00	0.05		1.60	BODY32	30.00	30.00	0.63	2.50	
3	120.00	1.00	HX KORO CTA /Cardiac	AXIAL		Heart	127.00	3.50		49.00	BODY32	190.00	190.00	0.63	20.00	1.00
4	120.00	0.05	HX KORO CTA /Cardiac	STATIONARY		Heart	0.00	2.40		2.40	BODY32	114.00	114.00	0.63	10.00	
5	120.00	0.54	HX KORO CTA /Cardiac	STATIONARY		Heart	463.00	28.80		28.80	BODY32	113.00	113.00	0.63	10.00	
6	120.00	22.34	HX KORO CTA /Cardiac	HELICAL		Heart	150.00	69.20	69.89	1095.00	BODY32	496.00	496.00	0.63	40.00	0.18
7	120.00	15.91	HX KORO CTA LATE /Cardiac	HELICAL		Heart	150.00	49.30	49.79	780.00	BODY32	353.00	353.00	0.63	40.00	0.18

Weight			Alert Dose	E (mSv)	Total DLP (mGy.cm)	Total DLP 16 (mGy.cm)	Total DLP 32 (mGy.cm)	IR Events	DLP w/acq (mGy.cm)	CTDIvol w/acq (mGy)	Delta X Max (cm)	Delta Y Max (cm)	Delta XY Max (cm)	Contrast Prod
75				4.92	291.50		291.50	3	91.79	2.24	1.87		1.87	Non-ionic
90				5.38	1196.62		1196.00	2	598.00	27.80	-0.68	-1.11	1.30	
96				49.06	2870.20		2870.20	4	672.27	11.53				Non-ionic
65				32.92	1772.70		1772.70	4	461.28	7.55	1.07	1.59	1.92	Non-ionic
57												0.34	1.11	Non-ionic
72											-0.03	0.59		Non-ionic
108												5.50	5.54	Iodine
56											1.01	1.56		
70											-0.69	0.96		
82				10.22	1009.30		1005.30	4.00			-0.67	0.68		Non-ionic
54				2.31	513.62		513.00	0.62						
96				2.34	520.62		520.00	0.62	1	520.00	24.80	0.38	1.28	1.34
71				10.04	989.00		986.50	2.50	2	220.32	13.86			Non-ionic
55				3.66	183.30		183.30	4	28.76	10.32	0.29	1.22	1.26	Iodine
93				9.67	578.20		578.20	4	170.93	7.87	-3.72	-2.21	4.32	
78				2.52	559.62		559.00	0.62	1	559.00	27.70			



Alert Message:

- Acq.6 CTDIvol (mGy) [Lvl 2: 45.00] = **69.20**
- Acq.7 CTDIvol (mGy) [Lvl 2: 45.00] = **49.30**
- Acq.6 DLP (mGy.cm) [Lvl 1: 1000] = **1095.00**

Comments:

- ☐ Centrace pacienta
- ☐ Endoproteza
- ☐ Nadvaha pacienta
- ☐ Nelze pouzit hlav. podlozku
- ☐ Opakovane skenovani
- ☐ Pohybova neostrost
- ☐ Pridana akvizice
- ☐ Ruce podel tela
- ☐ Viz. medikace

Check only this

Check only this

Check only this

Check only this

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Check only this

Check only this

Check only this

Studies' History:

VIT4561361 - CTKAL - CT - 3/23/2023

PDF

W

Study Information

Quality

SSDE and Positioning

mA Analysis

Patient Information

ID:

Name:

DoB:

Age:

Sex:

Height: 182 (cm)

Weight: 108 (Kg)

BMI: 32.60

Save

More Info...

Study Information

Study UID: 1.2.826.0.1.3680043.8.1053.6.1607015485897.33...

Study ID: 4146

Acc. Number: VIT4561361

Admission ID:

Modality: CT

Study Description: CTKAL

Study Date: 3/23/2023 3:14 PM

Procedure: CTKAL

Analyze

Reassign

Global Procedure:

Source Capture: SR

0 document(s)

Protocol: HX KORO CTA /CARDIAC

Analyze

Institution: Nem*****

Location:

Station: Philips CT-IQON

Manufacturer: Philips

Model: IQon - Spectral CT

Operator: ***

Perf. Physician: ***

Reassign

Req. Physician: MUD*****

Ignore in stats: ☐

Image Quality: Image Quality is not defined

Dose Information

Anat. Region: Chest

Organ Dose CT

Total Eff. Dose: 39.83 mSv

Total DLP: 1958.40 mGy.cm

Total DLP 32: 1958.40 mGy.cm

IR Events: 4

DLP w/acq: 337.99 mGy.cm

CTDIvol w/acq: 35.45 mGy

More Info...

Alert Message:

Acq.6 CTDIvol (mGy) [Lvl 2: 45.00] = 69.20

Acq.7 CTDIvol (mGy) [Lvl 2: 45.00] = 49.30

Acq.6 DLP (mGy.cm) [Lvl 1: 1000] = 1095.00

Comments:

Tags:

Restore

Save

Contrast Product Information				Acquisitions							
Iodine				Acq. Protocol	Type	Description	Anatomy	Scanning Length (mm)	CTDIvol (mGy) Level 1: 30 Level 2: 45.00	SSDE (mGy) 	DLP (mGy) Level 1: 1 Level 2: 1
Ingredient:	Route:		IV	/Cardiac							
Total Dose:	0.00 ml	Start/End Time:		HX KORO CTA /Cardiac	AXIAL		Heart	127.00	3.50		49.00
Concentration:	0.00 mg/ml	Volume:		HX KORO CTA /Cardiac	STATIONARY		Heart	0.00	2.40		2.40
Flow Rate:		Flow Duration:		HX KORO CTA /Cardiac	STATIONARY		Heart	463.00	28.80		28.80
				HX KORO CTA /Cardiac	HELICAL		Heart	150.00	69.20	69.89	1095.00
				HX KORO CTA LATE /Cardiac	HELICAL		Heart	150.00	49.30	49.79	780.00

Radiation Dose Monitor

Studies in Alert

Worklist

Today's Studies

Search

Statistics

Location:

Sh

CT

DX

MG

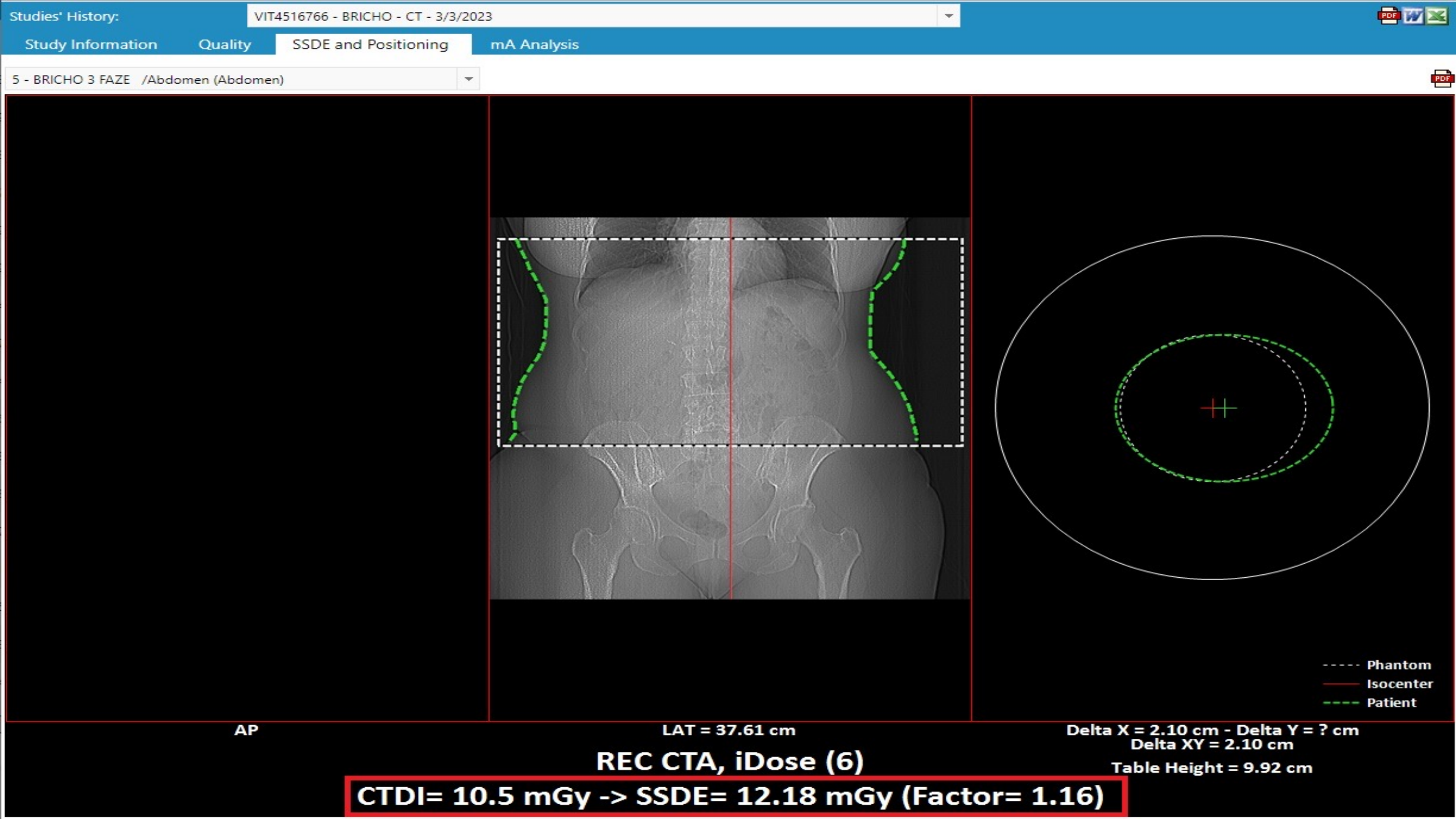
RF

XA

Alert Level Filter:

Patient Name	Patient ID	Age	Sex	Weight			Alert Dose	E (mSv)	Total DLP (mGy.cm)	Total DLP 16 (mGy.cm)	Total DLP 32 (mGy.cm)	IR Events	DLP w/acq (mGy.cm)	CTDIvol w/acq (mGy)	Delta X Max (cm)	Delta Y Max (cm)	Delta XY Max (cm)	Contrast Product
JAV*****	625421146	060Y	F	85				18.18	1072.30		1072.30	1	1063.00	59.10				
OTR*****	450509184	077Y	M	85				18.87	1016.70		1016.70	3	339.84	9.40	1.96	-3.16	3.72	Non-ionic
Hru*****	581215130	064Y	M	108				39.83	1958.40		1958.40	4	337.99	35.45	-0.99	5.50	5.54	Iodine
Val*****	730619714	049Y	M	75				16.77	2452.30		2450.10	4	312.73	26.55	-0.11	-2.25	2.25	Non-ionic
Mys*****	465902427	076Y	F	88				9.66	573.40		573.40	1	565.00	32.70				
SIT*****	440724447	078Y	M	70				10.43	614.30		614.30	1	610.00	23.70				
MAL*****	505609316	072Y	F	80				19.38	1044.20		1044.20	3	336.01	9.21				Non-ionic
Kov*****	626213051	060Y	F	162				61.01	3572.70		3572.70	3	1313.92	28.57				Non-ionic
iva*****	360228446	087Y	M	84				30.79	1802.90		1802.90	4	445.93	13.86	0.03	-3.44	3.44	Non-ionic

Acq. Number	KVP (kV)	E (mSv)	Acq. Protocol	Type	Description	Anatomy	Scanning Length (mm)	CTDIvol (mGy) Level 1: 32 Level 2: 64	SSDE (mGy)	DLP (mGy.cm) Level 1: 550 Level 2: 1100	Phantom	Tube Current Mean (mA)	Tube Current Max (mA)	Collimation Single (mm)	Collimation Total (mm)
1	140.00		PATER LS 120+ /Spine	LOCALIZER		Entire body	401.00	0.08		3.10	BODY32	30.00	30.00	0.63	2.50
2	140.00		PATER LS 120+ /Spine	LOCALIZER		Entire body	401.00	0.15		6.20	BODY32	60.00	60.00	0.63	2.50
3	140.00	18.18	PATER LS 120+ /Spine	HELICAL	ZDR SOFT, iDose (5)	Lumbar spine	168.00	59.10		1063.00	BODY32	437.00	437.00	0.63	40.00



Age: 42
Sex: F
Pregnancy: Yes 6 months

Height: 162 (cm)
Weight: 87 (Kg)
BMI: 33.15

Data saved Compute

Study Information

Acc. Number:
Procedure: BRICHO
Global Procedure:
Study Date: 3/13/2023 8:46 AM
Institution: Nem*****
Location:
Station: Philips CT-IQON

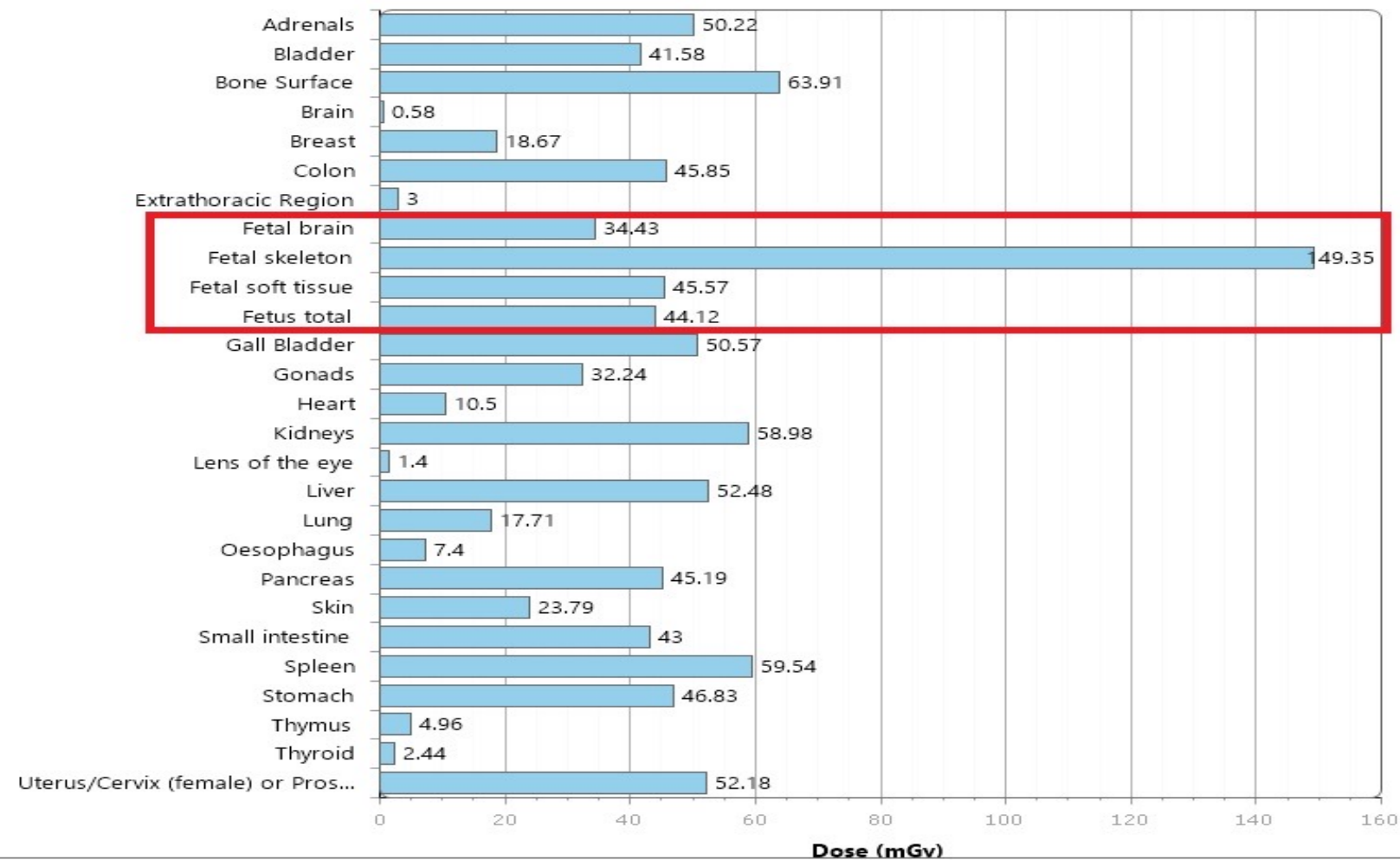
Total DLP: 1997.70 mGy.cm
Total DLP 16:
Total DLP 32: 1997.70 mGy.cm
IR Events: 5
DLP w/acq: 400.89 mGy.cm
CTDIvol w/acq: 9.55 mGy

	1	100.00		BRICHO 3 FAZE /Abdomen	LOCALIZER	
	2	100.00		BRICHO 3 FAZE /Abdomen	LOCALIZER	
Abdomen/Pelvis	3	120.00	8.50	BRICHO 3 FAZE /Abdomen	HELICAL	

Acquisition: All

Organ Dose

Pregnancy: 6 months Patient Height (cm): 162 Patient Weight (Kg): 87 Date/Time: 3/26/2023 9:45 AM



Parameters

Algorithm: PhilipsAzurion

Phantom Type: 3D

Palette Mode: Colors

Patient Height (cm): 170.0

Patient Weight (Kg): 79

Table Length (cm): 200

Table Width (cm): 50

Table Transmission: 0.8

Mattress Thickness (cm): 2

Mattress Transmission: 1

Calibration Factor: 1

Compute

The XY Origin is uncertain, the Skin Dose Map will be centered.

Information

ID:

Name:

DoB:

Age:

Sex:

Acc. Number:

Procedure: SKG

Global Procedure:

Study Date: 3/8/2023 10:26 AM

Institution: Nem*****...

Location:

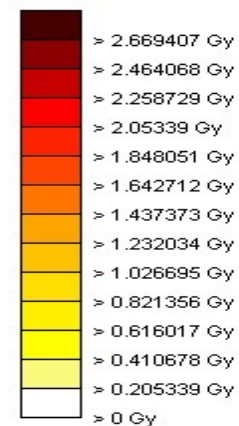
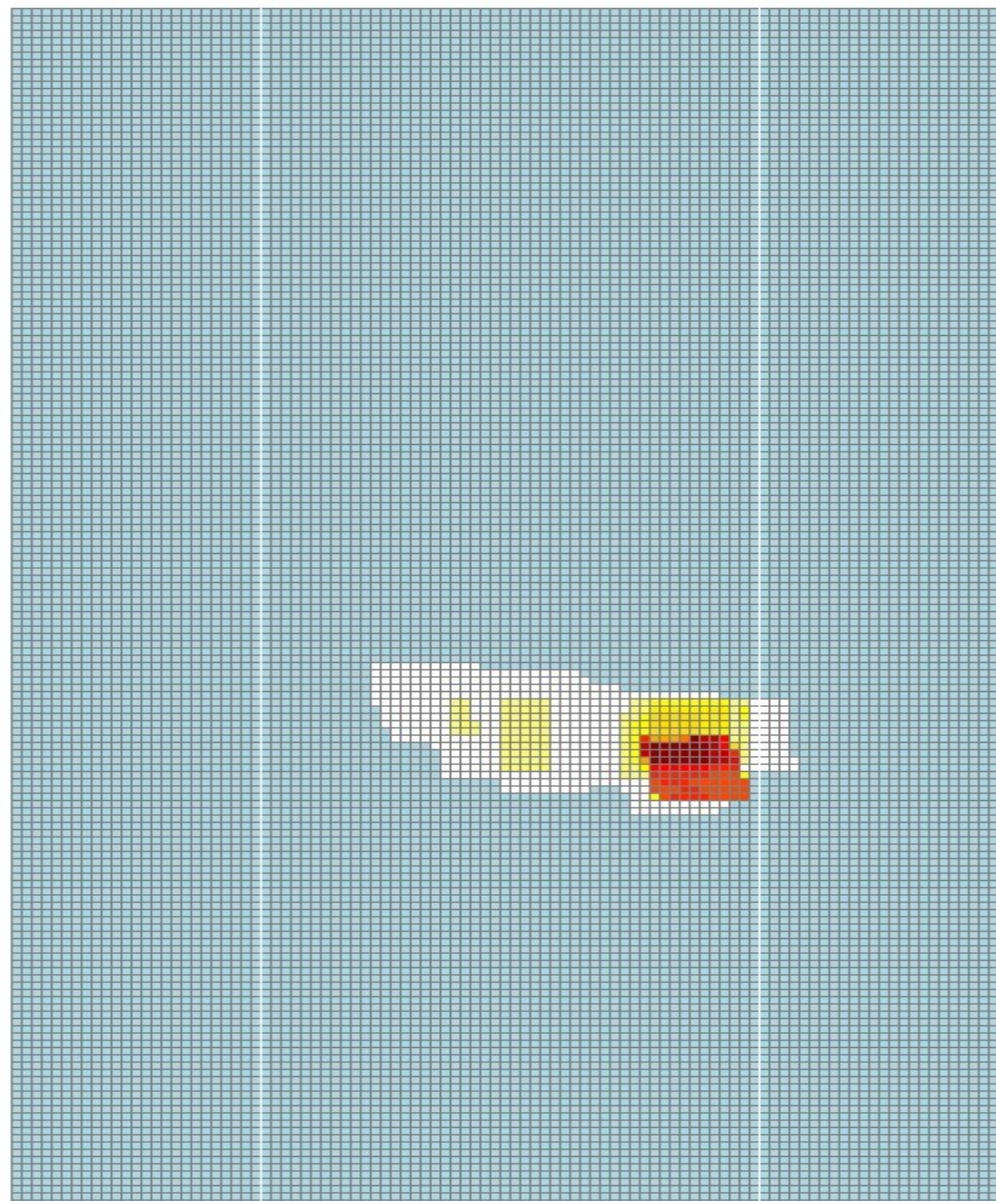
Station: Philips Azurion 5

Peak Skin Dose (Gy)

2.6694

Dose Value (Gy):

ANT LAO CRA POST RAO ANT



Examination Time: 55 min

POKROČILÉ STATISTICKÉ ANALÝZY

- Zobrazení distribuce dávek podle typu vyšetření a přístroje pro identifikaci vyšetření, která se největší mírou podílí na překračování referenčních hodnot
- Rychlá identifikace všech vyšetření a vyšetřovacích protokolů, které vykazují abnormality z hlediska dávky
- Vývoj dávky na konkrétní vyšetření a přístroj v čase, umožňuje např. sledovat průměrné dávky před servisem/po servise apod
- Obecné statistiky umožňující sledovat vývoj počtu vyšetření, podíl jednotlivých typů vyšetření a celkovém počtu apod.

CT DX MG RF XA General Reports

Dose Range Dose Comparison Dosimetry Evolution Dosimetry Trends Number of Studies by Alert Threshold Percentage % of Studies by Alert Level Alerts Distribution Pivot Grid

<< Week >> From: 01.04.2023 Institution: Nemocnice AGEL Ostrava-Vitkov Station: Philips CT-IQON 50 - 90 Kg
<< Month >> To: 19.04.2023 Location: Image Quality: Search Clear

Pivot Grid (CT)

● Procedure ○ Study Protocol

Procedure ▲	Acquisition Protocol ▲	Acquisition Type ▲	Scanning Length (mm) - Av	DLP (mGy.cm) - Av	CTDIvol (mGy) - Av	SSDE (mGy) - Av	KVP (kV) - Av	KVP 2 (kV) - Av	Pitch Factor (ratio) - Av
DKK	DKK /ANGIO	STATIONARY	231,00	6,60	6,60		120,00		
		HELICAL	1347,14	1170,00	8,59	12,81	120,00		0,60
		LOCALIZER	1401,00	4,45	0,03		115,00		
HRUD+BRICHO	HRUD+BRICHO /Thorax	STATIONARY	279,14	2,57	2,57	8,10	120,00		
		HELICAL	552,82	690,55	12,30	14,54	120,00		1,02
		LOCALIZER	662,52	1,49	0,02		100,00		
HRUDNIK	BRICHO 3 FAZE /Abdomen	STATIONARY	305,20	4,06	4,06	10,63	120,00		
		HELICAL	261,00	294,00	10,40	12,48	120,00		0,80
		LOCALIZER	321,00	0,73	0,02		100,00		
	HRUDNIK /Thorax	STATIONARY	242,21	4,07	4,07	7,70	120,00		
		HELICAL	446,68	380,98	8,21	10,32	120,00		0,60
		LOCALIZER	484,59	1,08	0,02		100,00		
	HRUDNIK NATIV /Thorax	STATIONARY	247,50	2,25	2,25		120,00		
		HELICAL	391,00	365,50	8,75		120,00		0,60
		LOCALIZER	441,00	1,00	0,02		100,00		
	HRUDNIK ONKO KL /Thorax	STATIONARY	248,00	3,75	3,75		120,00		
		HELICAL	426,00	375,00	8,50	12,32	120,00		0,60
		LOCALIZER	431,00	0,97	0,02		100,00		
KRK+HRUD+BRICHO	STUDIE TRN /Thorax	STATIONARY	247,50	2,25	2,25		120,00		
		HELICAL	445,00	271,50	5,90	9,38	130,00		0,60
		LOCALIZER	451,00	1,00	0,02		100,00		
	HRUD+BRICHO /Thorax	STATIONARY	259,00	3,75	3,75		120,00		
		HELICAL	822,00	821,00	9,80	12,74	120,00		0,60
		LOCALIZER	831,00	1,80	0,02		100,00		
MOZEK	CMP, ESTROKE /Head	STATIONARY	183,67	449,00	23,23		120,00		0,30
		HELICAL	199,00	682,00	32,70		120,00		0,30
		LOCALIZER	447,00	1,00	0,02		100,00		
	MOZEK /Head	STATIONARY	244,74	0,30	0,01		80,00		
		HELICAL	204,58	574,56	26,91		120,00		0,30
		LOCALIZER	244,74	0,30	0,01		80,00		

Filter

Procedure

Check All

AORTA ABD

AORTA CELA

AORTA TH

BIOPSIE

BRICHO

Study Protocol

Check All

AORTA CELA /ANGIO

BIOPSIE KLASIKA

/INTERVENTIONAL

BRICHO 3 FAZE /ABDOMEN

BRICHO 3 FAZE 50+

Acquisition Protocol

Check All

PND /Ear

AORTA CELA /ANGIO

BIOPSIE KLASIKA

/Interventional

BRICHO 2 FAZE + VNC

Acquisition Type

Check All

AXIAL

HELICAL

LOCALIZER

STATIONARY

Anatomy

Radiation Dose Monitor

CT

Dose Range

Dose Comparison

Dosimetry Evolution

Dosimetry Trends

Number of Studies by Alert Threshold Percentage

% of Studies by Alert Level

Alerts Distribution

Pivot Gr

<<Week>>

From: 1/1/2023

<<Month>>

To: 3/31/2023

Institution: Nem*****

Location:

Station: Philips CT-IQON

Population:

Procedure

Region

Protocol

Global Procedure

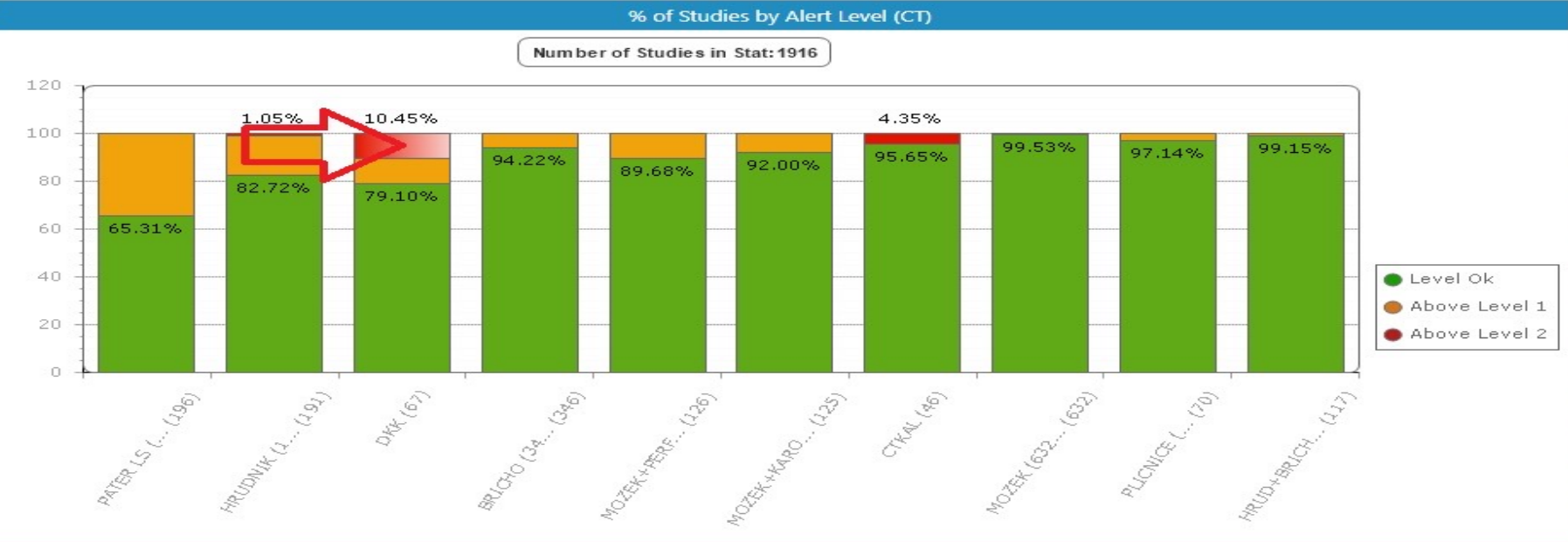
Operator:

Perf. Physician:

Image Quality:

Search

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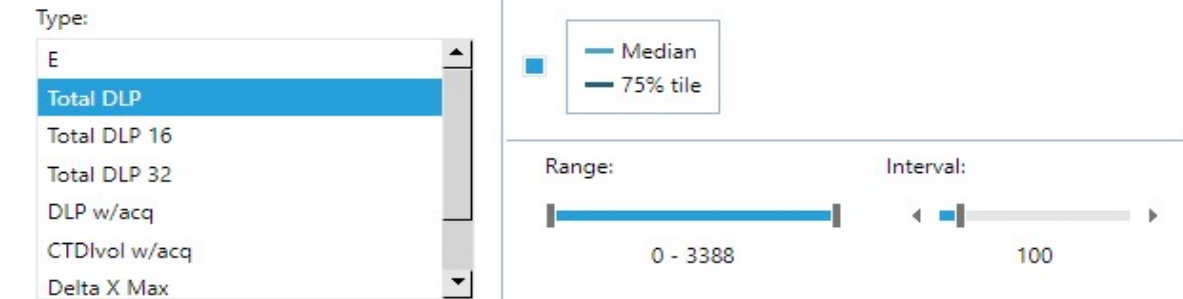


Nb of Studies: 2036
From: 1/1/2023
To: 3/31/2023
Institution: Nem*****
Modality: CT
Station: Philips CT-IQON
Description: for checked Procedures

Dose Information							
	Max	95% tile	75% tile	Average	Median	25% tile	5% tile
E	72.27	41.75	18.37	13.63	10.67	3.00	2.14
Total DLP	6591.1	2577	1477.6	1068.58	770.62	545.62	218
Total DLP 16	4390.1	2380.5	1468	1017.75	662	555	463
Total DLP 32	5538.1	2375.9	990.3	617.99	260.2	0.62	0.57
IR Events	11	5	4	2.33	2	1	1
DLP w/acq	1461.96	895.21	611	470.30	474	283.49	80.3
CTDIvol w/acq	75.1	36.4	27.7	19.47	19.68	9.1	5.34
Delta X Max	3.62	1.15	0.32	-0.09	-0.05	-0.49	-1.4
Delta Y Max	9.50	2.64	1.11	0.03	0.36	-1.16	-3.2

Patient Name	Patient ID	Age	Sex	Weight			Alert Dose	E (mSv)	Total DLP (mGy.cm)		Total DLP 16 (mGy.cm)	Total DLP 32 (mGy.cm)	IR Events	DLP w/acq (mGy.cm)	CTDIvol w/acq (mGy)	Delta X Max (cm)
Ada*****	5755126784	065Y	F	110				33.02	1935.60			1935.60	2	1441.47	11.53	-0.06
BOR*****	5604010786	066Y	M	100				32.94	1931.30			1931.30	2	1371.87	11.50	0.99
Fri*****	435722438	079Y	F	75				57.85	3387.80			3387.80	3	1400.48	11.65	0.56
Kac*****	6102117384	062Y	M	110				33.93	1989.60			1989.60	2	1454.96	11.81	0.99
Kol*****	5810051115	064Y	M	118				33.34	1955.30			1955.30	2	1446.52	11.74	-0.47
MAC*****	470713779	075Y	M	120				33.65	1972.80			1972.80	2	1426.30	12.30	0.25
Mal*****	530711386	069Y	M	96				33.05	1937.10			1937.10	4	896.77	11.45	-2.72

Image Quality: ▼ Station: Philips CT-IQON ▼ Population: ▼ Search Clear



Nb of Studies:	67
From:	1/1/2023
To:	3/31/2023
Institution:	Nem*****
Modality:	CT
Station:	Philips CT-IQON
Description:	DKK

Dose Information						
	Max	95% tile	75% tile	Average	Median	25% tile
E	57.85	33.34	26.23	22.86	21.76	17.17
Total DLP	3387.8	1955.3	1538.9	1341.84	1277.1	1008.8
Total DLP 16	0	0	0	0	0	0
Total DLP 32	3387.8	1955.3	1538.9	1341.84	1277.1	1008.8
IR Events	4	2	2	2.04	2	2
DLP w/acq	1461.96	1441.47	1104.88	932.32	896.77	696.94
CTDIvol w/acq	13.47	11.81	10.03	8.35	8.05	6.66
Delta X Max	2.69	1.42	0.67	0.18	0.22	-0.30
Delta Y Max	0	0	0	0	0	0
Delta XY Max	2.72	1.99	0.95	0.67	0.55	0.25

CTDXMGRFXAGeneralReports

Dose RangeDose ComparisonDosimetry EvolutionDosimetry TrendsNumber of Studies by Alert Threshold Percentage% of Studies by Alert LevelAlerts DistributionPivot Grid

<<Week>>From: 1/1/2023Institution: Nem*****ProcedureRegionProtocolGlobal ProcedureOperator: <div></div></div><<Month>>To: 3/31/2023Location: BRICHOPerf. Physician: <div></div></div>Image Quality: <div></div>Station: Philips CT-IQONPopulation: 85 - 105 KgSearchClear

Dose Comparison (CT)

12+

VisibleDelete search

Number of Studies in Stat: 245

DLP w/acq (mGy.cm)

Type:

E

Total DLP

Total DLP 16

Total DLP 32

DLP w/acq

CTDIvol w/acq

Delta X Max

Nb of Studies: 104
From: 1/1/2023
To: 3/31/2023
Institution: Nem*****
Modality: CT
Station: Philips CT-IQON
Description: BRICHO
From Patient
Weight: 86 (Kg)
To Patient Weight: 105 (Kg)

Dose Information							
	Max	95% tile	75% tile	Average	Median	25% tile	5% tile
E	63.36	49.43	42.30	33.31	36.40	26.49	11.44
Total DLP	3706.8	2891.6	2475.8	1949.48	2130.2	1550.1	670.5
Total DLP 16	0	0	0	0	0	0	0
Total DLP 32	3706.8	2891.6	2475.8	1949.48	2130.2	1550.1	670.5
IR Events	5	5	5	3.80	4	4	1
DLP w/acq	790	699.28	573.86	494.02	480.04	415.74	317.0
CTDIvol w/acq	17.05	15.1	13.36	11.97	11.92	10.52	8.14
Delta X Max	2.13	1.63	0.83	0.07	0.21	-0.66	-1.67
Delta Y Max	2.80	2.80	-0.49	-2.69	-2.66	-5.32	-6.25
Delta XY Max	6.30	4.74	1.67	1.36	0.98	0.49	0.16

CT

Dose Range

Dose Comparison

Dosimetry Evolution

Dosimetry Trends

Number of Studies by Alert Threshold Percentage

% of Studies by Alert Level

Alerts Distribution

Pivot Grid

Presets:

From: 6/1/2022

Institution: Nem*****

Procedure

Region

Protocol

Global Procedure

Operator:

To: 2/28/2023

Location:

Perf. Physician:

Image Quality:

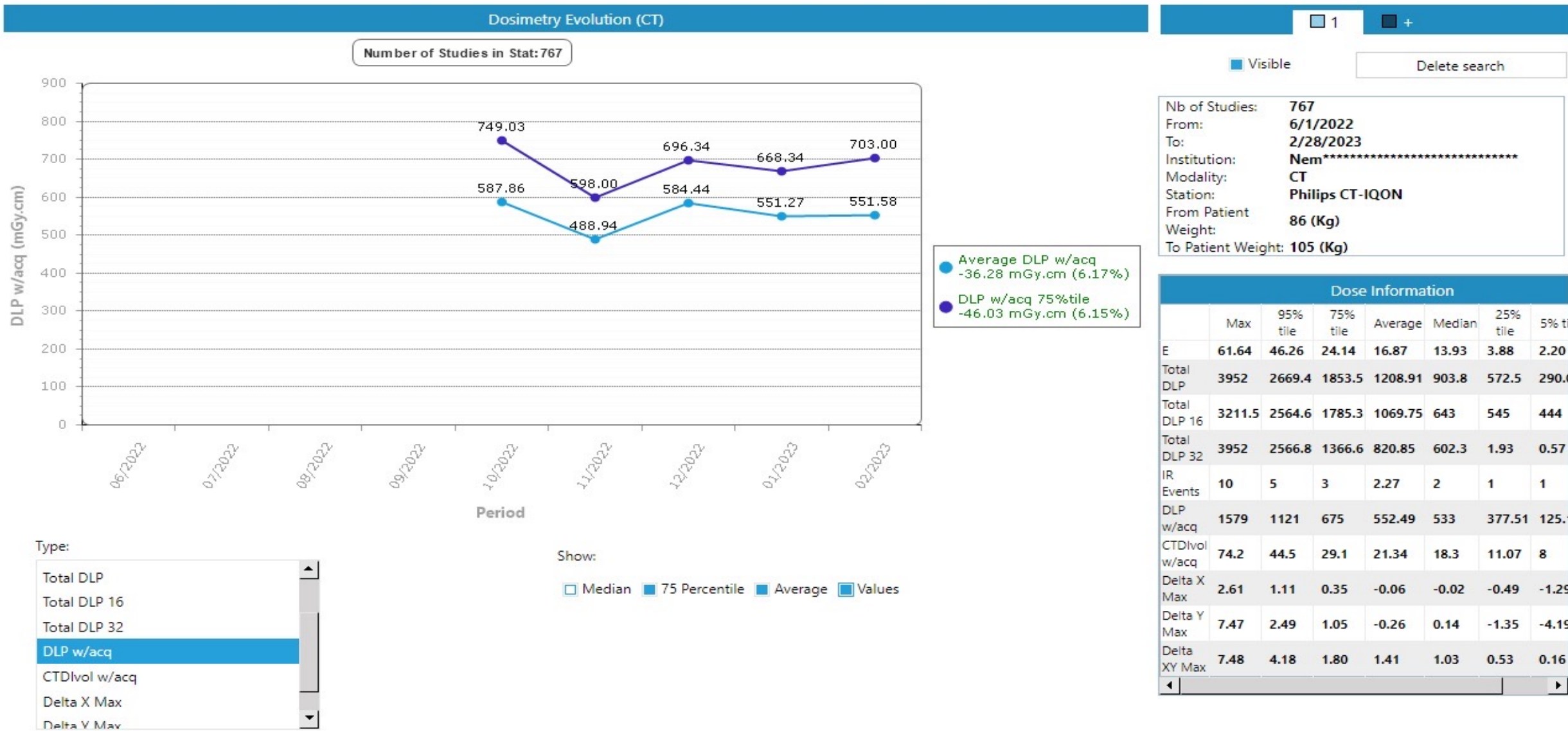
Station: Philips CT-IQON

Population:

85 - 105 Kg

Search

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HLAVNÍ PŘÍNOS INSTALACE

- Souhrnný a rychlý přehled patientských dávek a atributů vyšetření
- Okamžitá informace o překročení alertů
- Rychlá a jednoduchá práce s daty
- Možnost exportu všech dat do xls/ pdf

DĚKUJI ZA POZORNOST

