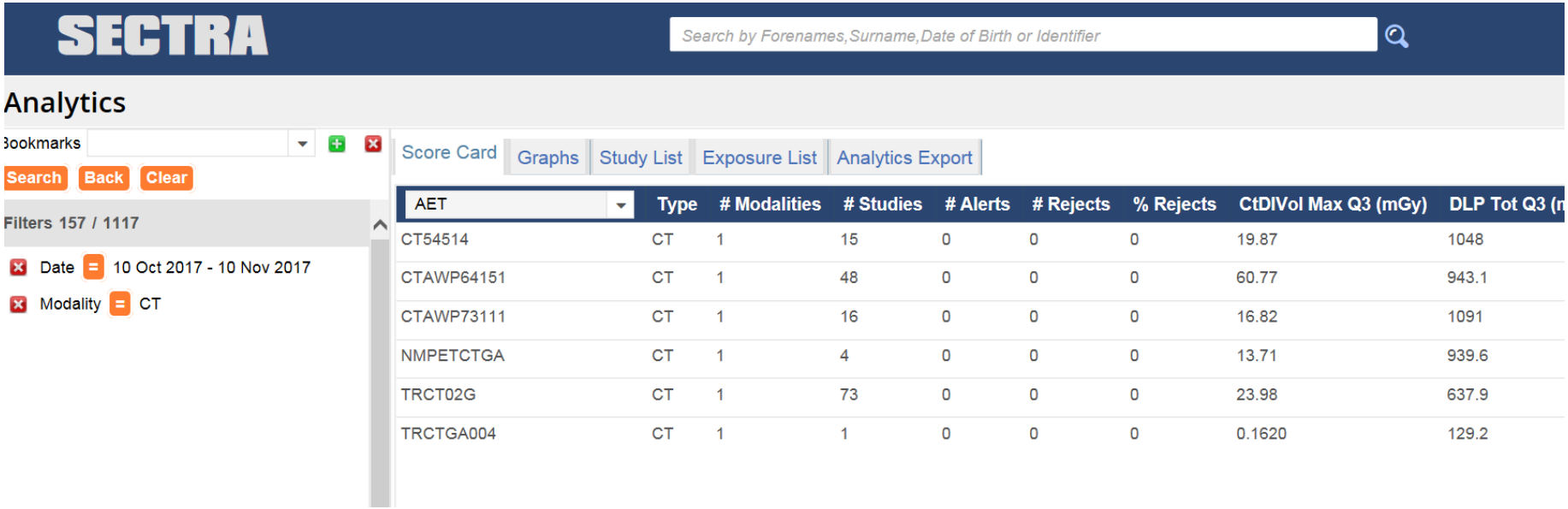
Novembermøte 2018

20.11.18 Helse Midt RHF

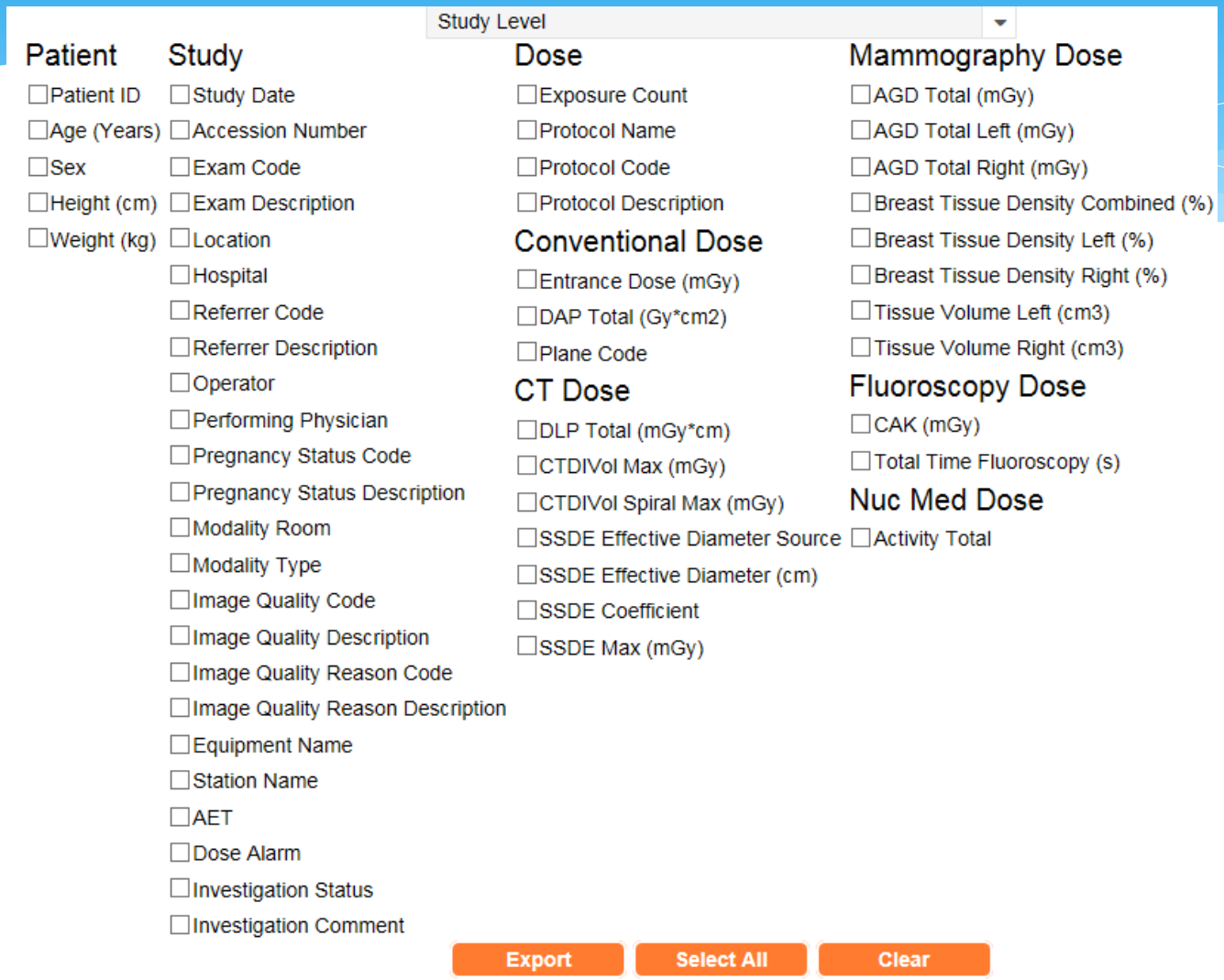
DoseTrack

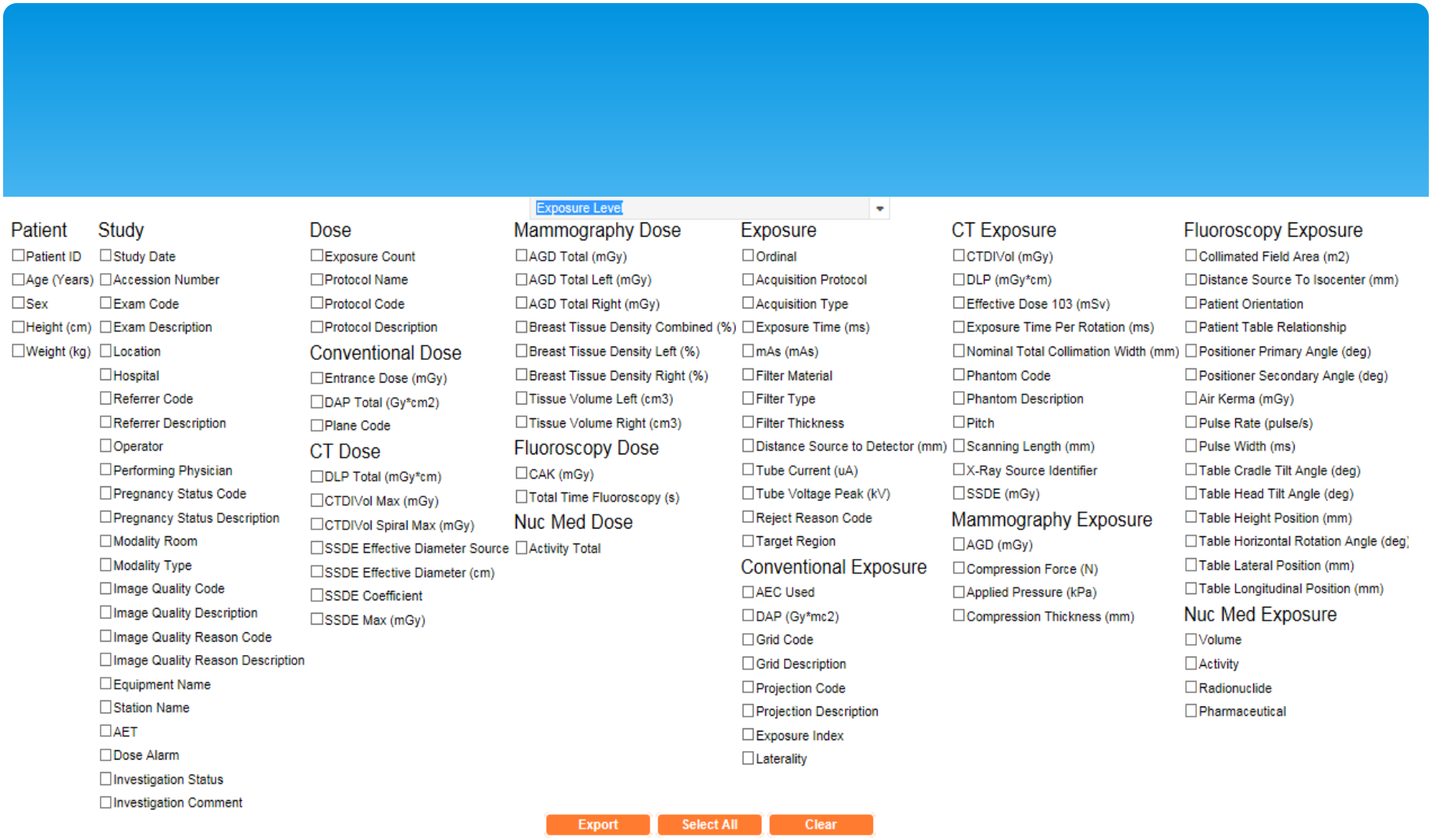
* Oppstart 10. oktober 2017
* En del arbeid å legge inn modalitetene – jobba tett med medisinsk teknisk og leverandør
* Har kobla opp 80 modaliteter
* Oppdager stadig nye bruksområder

Analyseverktøy

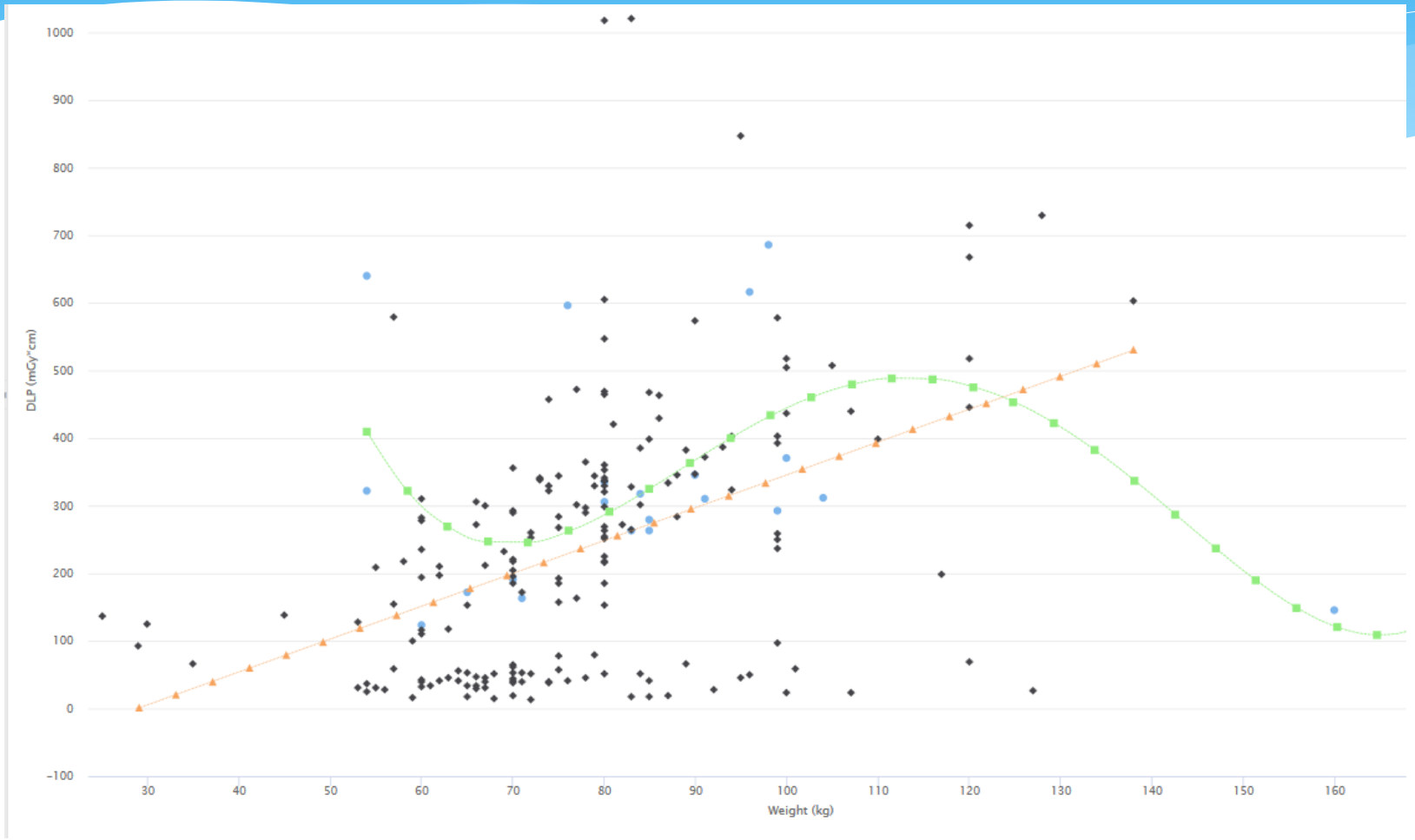


Kan eksportere data




Exposure Level
Patient
Patient ID
Age (Years)
Sex
Height (cm)
Weight (kg)
Study
Study Date
Accession Number
Exam Code
Exam Description
Location
Hospital
Referrer Code
Referrer Description
Operator
Performing Physician
Pregnancy Status Code
Pregnancy Status Description
Modality Room
Modality Type
Image Quality Code
Image Quality Description
Image Quality Reason Code
Image Quality Reason Description
Equipment Name
Station Name
AET
Dose Alarm
Investigation Status
Investigation Comment
Dose
Exposure Count
Protocol Name
Protocol Code
Protocol Description
Conventional Dose
Entrance Dose (mGy)
DAP Total (Gy*cm2)
Plane Code
CT Dose
DLP Total (mGy*cm)
CTDIVol Max (mGy)
CTDIVol Spiral Max (mGy)
SSDE Effective Diameter Source
SSDE Effective Diameter (cm)
SSDE Coefficient
SSDE Max (mGy)
Mammography Dose
AGD Total (mGy)
AGD Total Left (mGy)
AGD Total Right (mGy)
Breast Tissue Density Combined (%)
Breast Tissue Density Left (%)
Breast Tissue Density Right (%)
Tissue Volume Left (cm3)
Tissue Volume Right (cm3)
Fluoroscopy Dose
CAK (mGy)
Total Time Fluoroscopy (s)
Nuc Med Dose
Activity Total
Exposure
Ordinal
Acquisition Protocol
Acquisition Type
Exposure Time (ms)
mAs (mAs)
Filter Material
Filter Type
Filter Thickness
Distance Source to Detector (mm)
Tube Current (uA)
Tube Voltage Peak (kV)
Reject Reason Code
Target Region
Conventional Exposure
AEC Used
DAP (Gy*mc2)
Grid Code
Grid Description
Projection Code
Projection Description
Exposure Index
Laterality
CT Exposure
CTDIVol (mGy)
DLP (mGy*cm)
Effective Dose 103 (mSv)
Exposure Time Per Rotation (ms)
Nominal Total Collimation Width (mm)
Phantom Code
Phantom Description
Pitch
Scanning Length (mm)
X-Ray Source Identifier
SSDE (mGy)
Mammography Exposure
AGD (mGy)
Compression Force (N)
Applied Pressure (kPa)
Compression Thickness (mm)
Fluoroscopy Exposure
Collimated Field Area (m2)
Distance Source To Isocenter (mm)
Patient Orientation
Patient Table Relationship
Positioner Primary Angle (deg)
Positioner Secondary Angle (deg)
Air Kerma (mGy)
Pulse Rate (pulse/s)
Pulse Width (ms)
Table Cradle Tilt Angle (deg)
Table Head Tilt Angle (deg)
Table Height Position (mm)
Table Horizontal Rotation Angle (deg)
Table Lateral Position (mm)
Table Longitudinal Position (mm)
Nuc Med Exposure
Volume
Activity
Radionuclide
Pharmaceutical
Export
Select All
Clear

Scatter chart



Går inn på enkeltundersøkelse

Exposures

DLP **6.7** mGy·cm CTDI Volume **0.0853537** mGy
Phantom **IEC Body Dosimetry Phantom**
Time **7909** ms

Source Parameters
Tube Current **94.8286762** uA mAs **1** mAs
Voltage Peak **120** kV

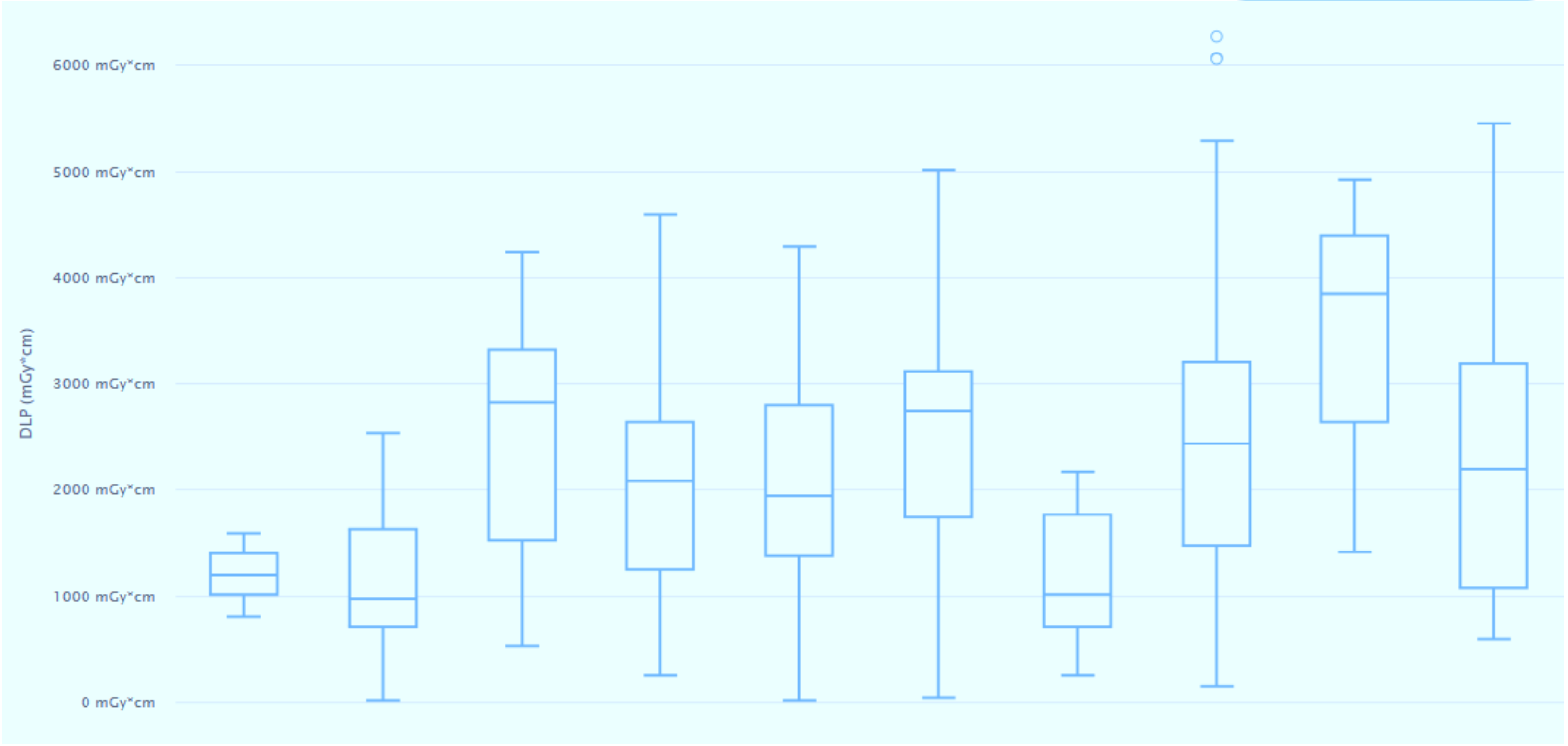
Acq. Protocol **THX**
DLP **289.415491** mGy·cm CTDI Volume **8.5599293506** mGy
Phantom **IEC Body Dosimetry Phantom**
Time **7118** ms

Source Parameters
Tube Current **18329.7809** uA mAs **130** mAs
Voltage Peak **120** kV

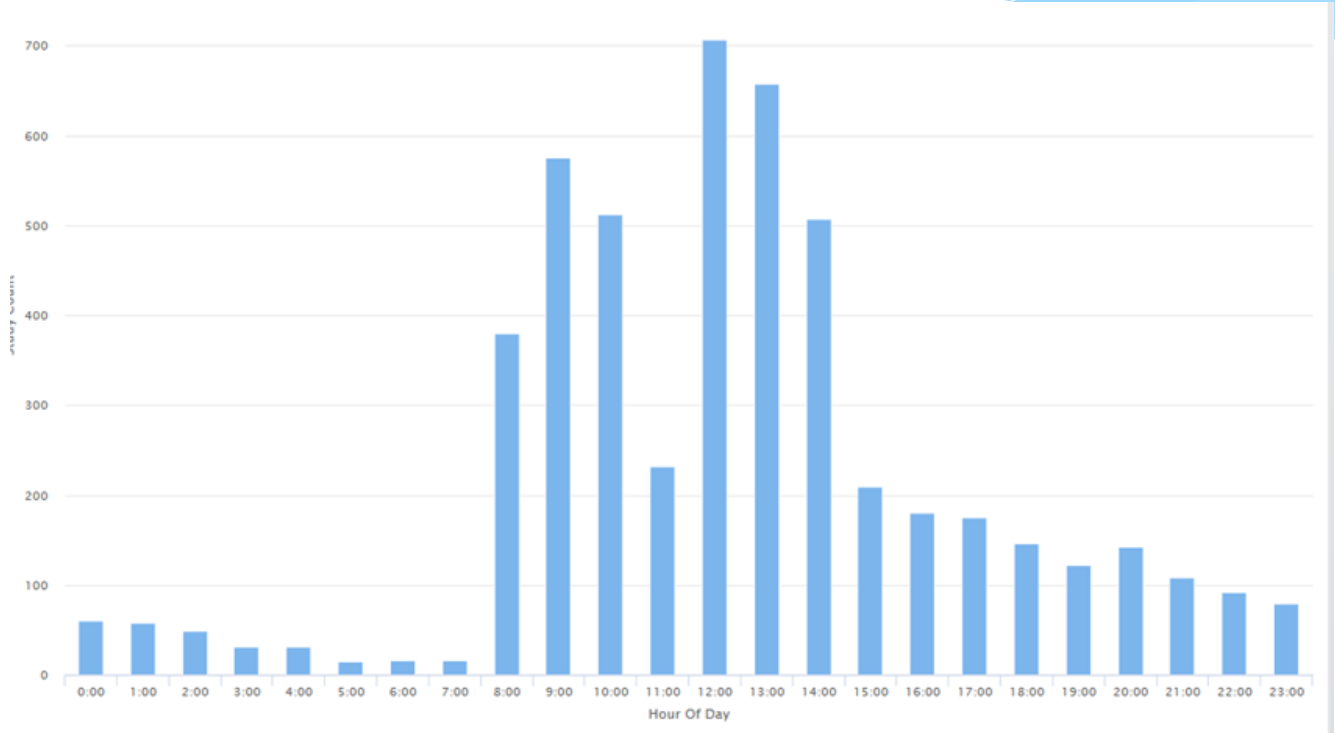
Acq. Protocol **ABDOMEN**
DLP **880.433498** mGy·cm CTDI Volume **14.2066697884** mGy
Phantom **IEC Body Dosimetry Phantom**
Time **13047** ms

Source Parameters
Tube Current **16645.3374** uA mAs **217** mAs
Voltage Peak **120** kV

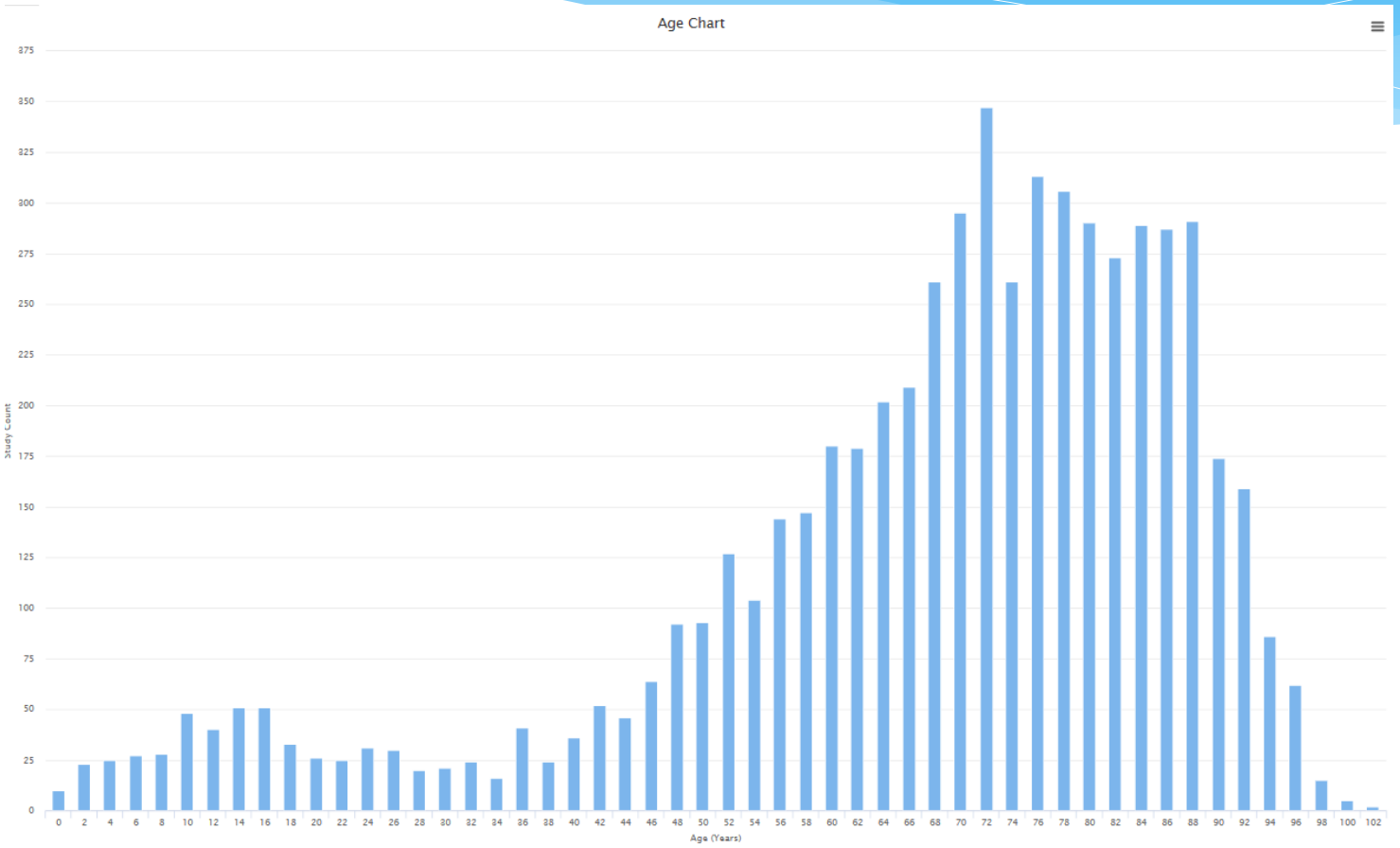
Box plot


6000 mGy*cm
5000 mGy*cm
4000 mGy*cm
3000 mGy*cm
2000 mGy*cm
1000 mGy*cm
0 mGy*cm
DLP (mGy*cm)

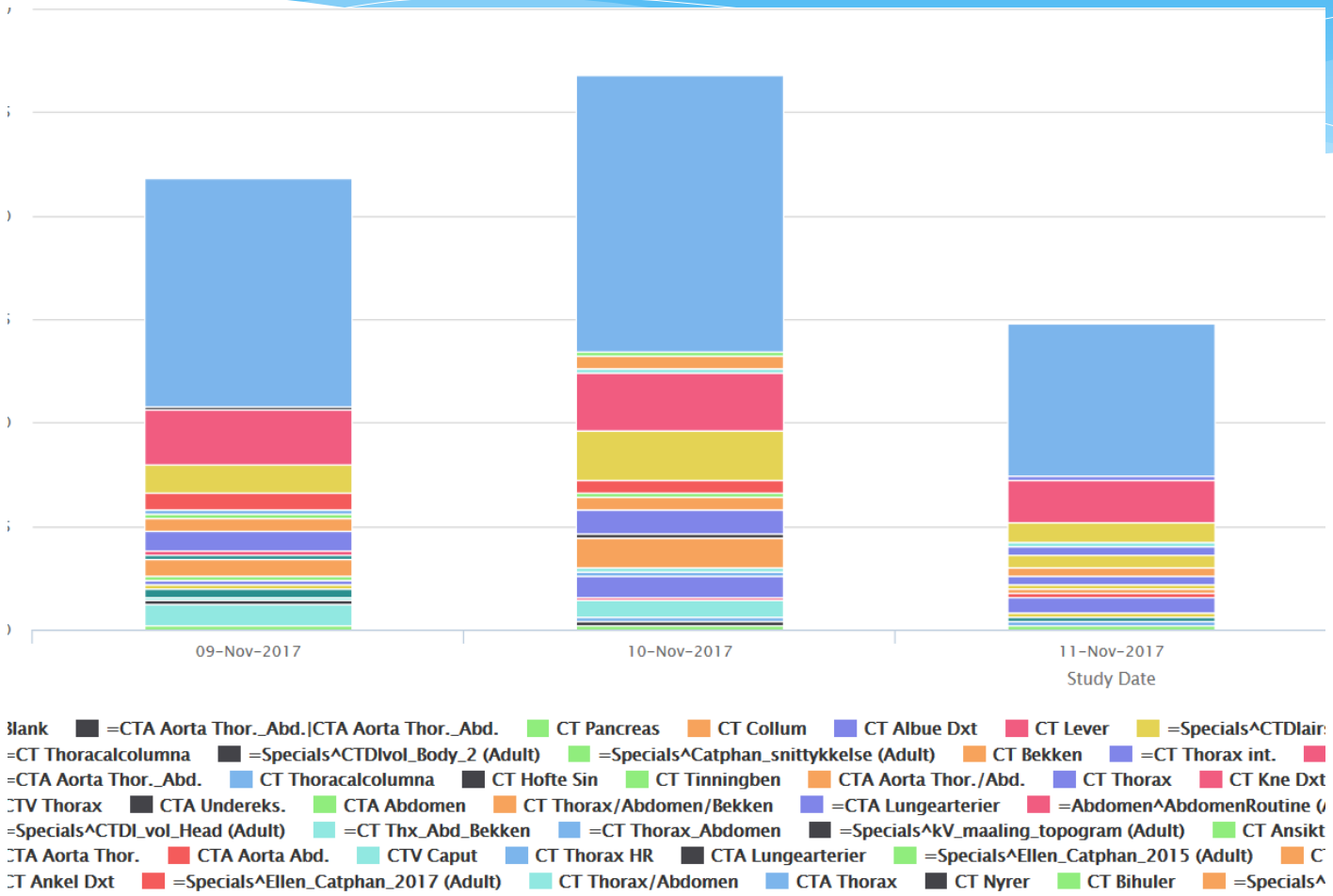
Histogram chart



Aldersfordeling rtg hofte



Prosedyrefordeling pr dag



Alarmer

DoseTrack Alarm for Sykehuset Levanger - LECT

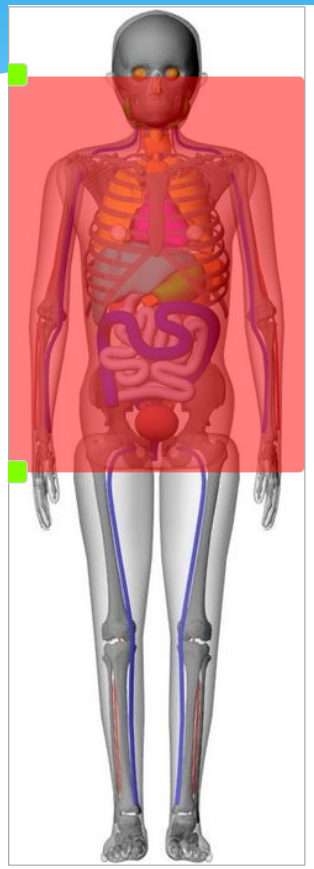
no-reply@dosetrack-no.sectra.com

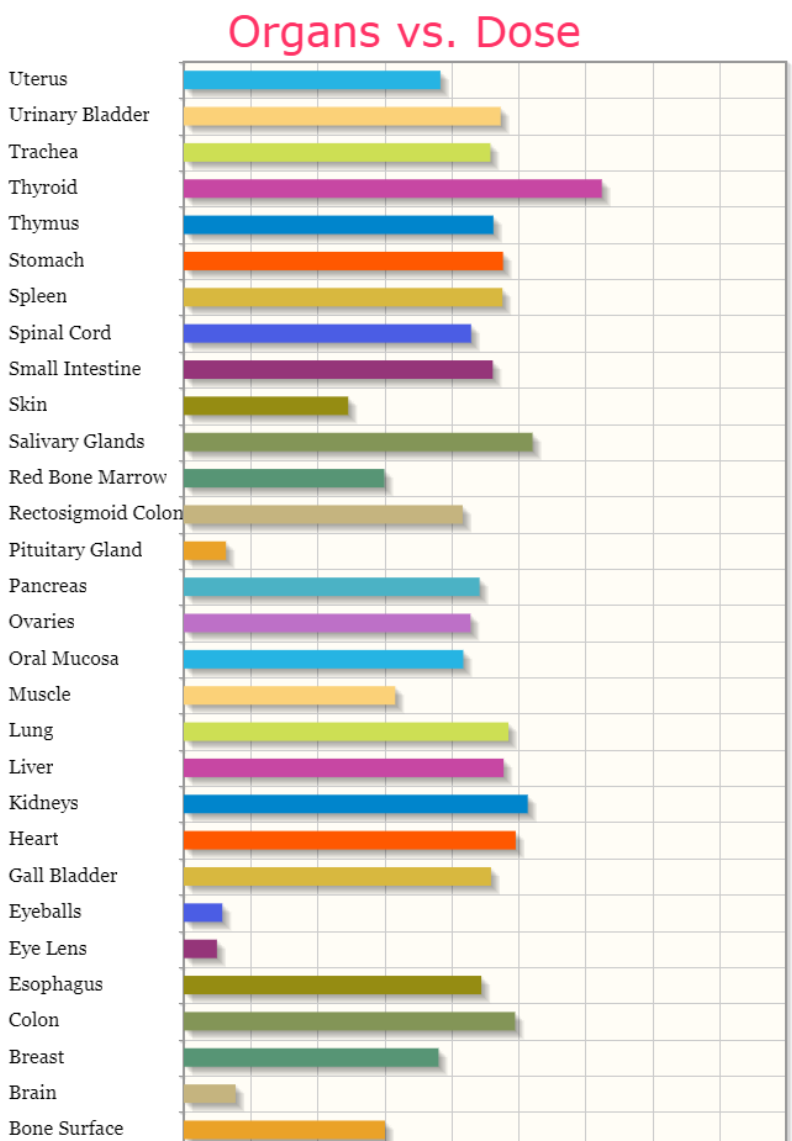
Follow up. Fullført 5. november 2018.
Ekstra linjeskift ble fjernet i denne meldingen.

Sendt: fr 02.11.2018 12:30
Til: Gårseth, Mari

A dose alarm has been raised for location Sykehuset Levanger - Avdeling for bildediagnostikk, Sykehuset Levanger - LECT
Modality: LECT001 - LECT001
Procedure: CT Caput - CT Caput|CT Caput - CT Caput Accession number: NORLE00011364292
Reason: The measurement for DLP Total was 2301 mGy*cm which is greater than 1900 mGy*cm set as the limit Please login to the DoseTrack to assess the alarm.

VirtualDose





Organ Dose	
Organ/Tissue Name	**Doses (mGy)**
Bone Surface	3.34
Brain	0.86
Breast	4.23
Colon	5.50
Esophagus	4.94
Liver	5.31
Lung	5.39
Ovaries	4.76
Red Bone Marrow	3.33
Salivary Glands	5.79
Skin	2.73
Stomach	5.30
Thyroid	6.94
Urinary Bladder	5.26
Total Effective Dose(ICRP103) (mSv): 4.86	

Remainder Organs	
Remainder Organs	**Doses (mGy)**
Adrenals	4.66
Eye Lens	0.55
Eyeballs	0.64
Gall Bladder	5.10
Heart	5.51
Kidneys	5.71
Muscle	3.51
Oral Mucosa	4.64
Pancreas	4.91

Hva har vi brukt DoseTrack til?

* Optimalisering
* Etablering av representative doser
* Oppfølging av alarmer
  * Samarbeid med fagradiografer og radiologer
  * Internundervisning
* Beregning av fosterdose
* Identifisering av «uteliggere»

Et par utfordringer

* Undersøkelser fra en nytilkoblet modalitet havnet på en annen modalitet i DoseTrack!
  * Årsak: Modalitetene hadde samme Station name
  * Løsning: Endret Station name på ene modaliteten
* DAP-meter ved modalitet defekt og sendte inn veldig små DAP-verdier
  * Ble oppdaget ved statuskontroll (ble ikke oppdaget ved «Stalled modalities» da den faktisk sendte noe...)
  * Løsning: Skifte DAP meter til kr 100.000,-

Fortsettelse

* Webinar med SECTRA
* Samarbeidsmøter regionalt
* … og etterhvert også nasjonalt