

Our Cardiac CT Decision Tree for PhotonCounting CT

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for Neotom Alpha.Peak
in cooperation with Siemens Healthineers
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Benefits of PhotonCounting CT

for Cardiac-CT



- Higher spatial resolution
- Improved contrast-to-noise ratio (CNR)
- Reduced calcium blooming
- Better stent visualization
- Multi-energy / spectral imaging
- Improved quantification
- Potential radiation dose reduction

Benefits of PhotonCounting CT

for Cardiac-CT

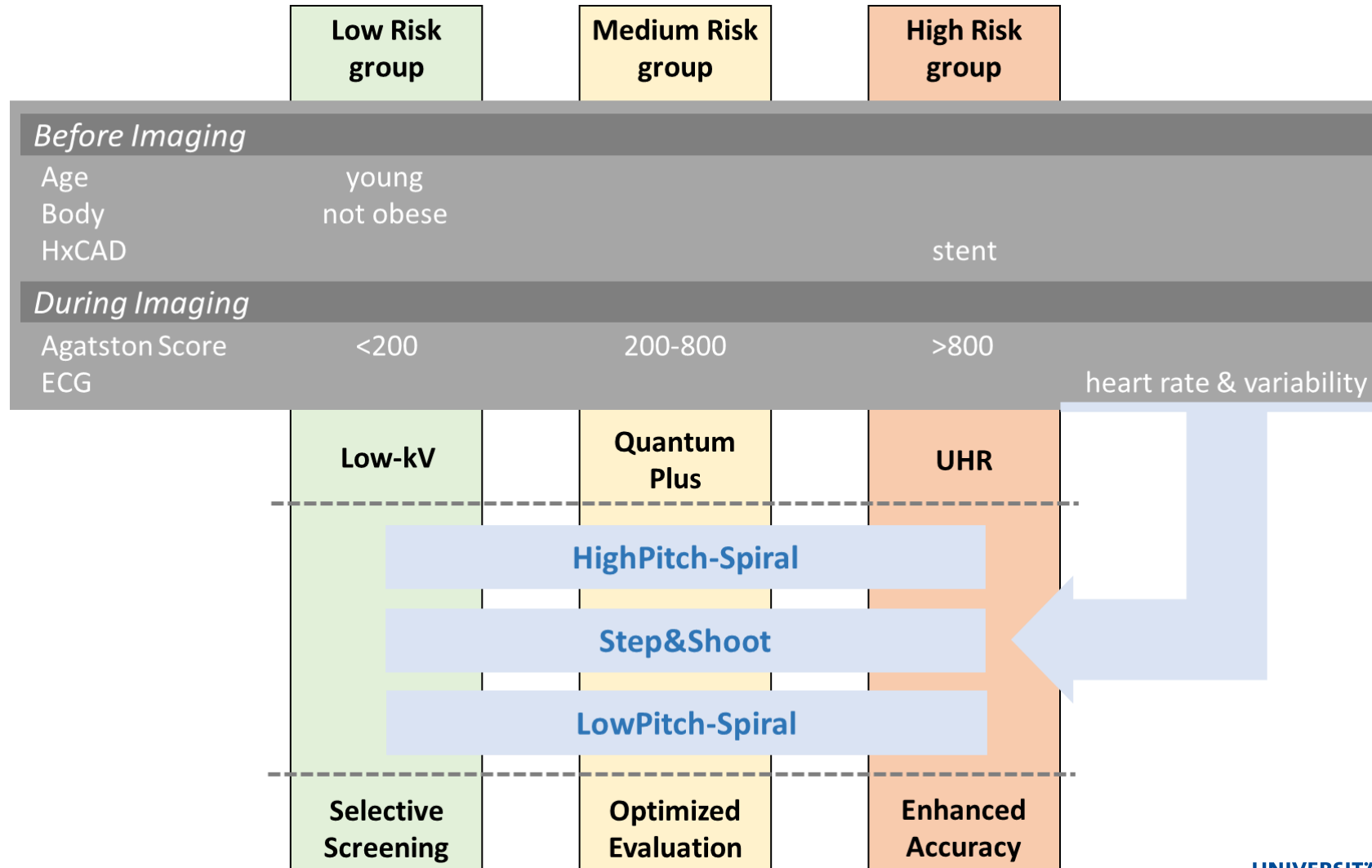


How can Photon-Counting CT be leveraged to design personalized scan protocols that guarantee the best possible diagnostic excellence for each and every patient?

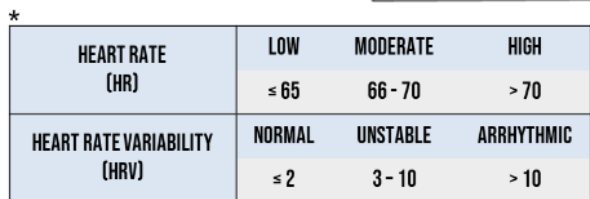
→ **Scanner-based
Decision Tree
(myExam)**

Our Approach

"Lowest risk, full dedication" – driven by probability before and during the scan






for Alpha.Peak



myExam for the Decision Tree

SIEMENS Healthineers





1001_Kardio TA V4...

myExam Compass

Topogram

Topogram

Calcium Scoring

Test Bolus

Kardio Sequenz


Kardio Sequenz Spectral

Kardio UHR Sequenz Spectral

Reconstruction


Close

Questions

 Do you see any metal implants on the topogram?


Yes

No

 Ist ein Koronar-Stent vorhanden und kann der Patient die Luft gut anhalten ?

Ja, beides gilt ! (Spektral UHR)


Nein

 Ist der Agatston Score des Patienten

< 200 (Quantum)


200 - 800 (QuantumPlus)

> 800 und der Pati...

 Ist das Alter <60J. und der BMI <30 ?


Ja, beides gilt ! (Quantum)

Nein (QuantumPlus)

 Spirale oder Sequenz erzwingen ? (Antwort ist optional !)

Spirale

Sequenz

 Ist eine erneuter Scan mit einem anderen Typ notwendig ?

Nein

Low-kV (Quantum)

Spektral (QuantumPlus)

UHR (QuantumPlu

Information

Cardiac CT Decision Tree

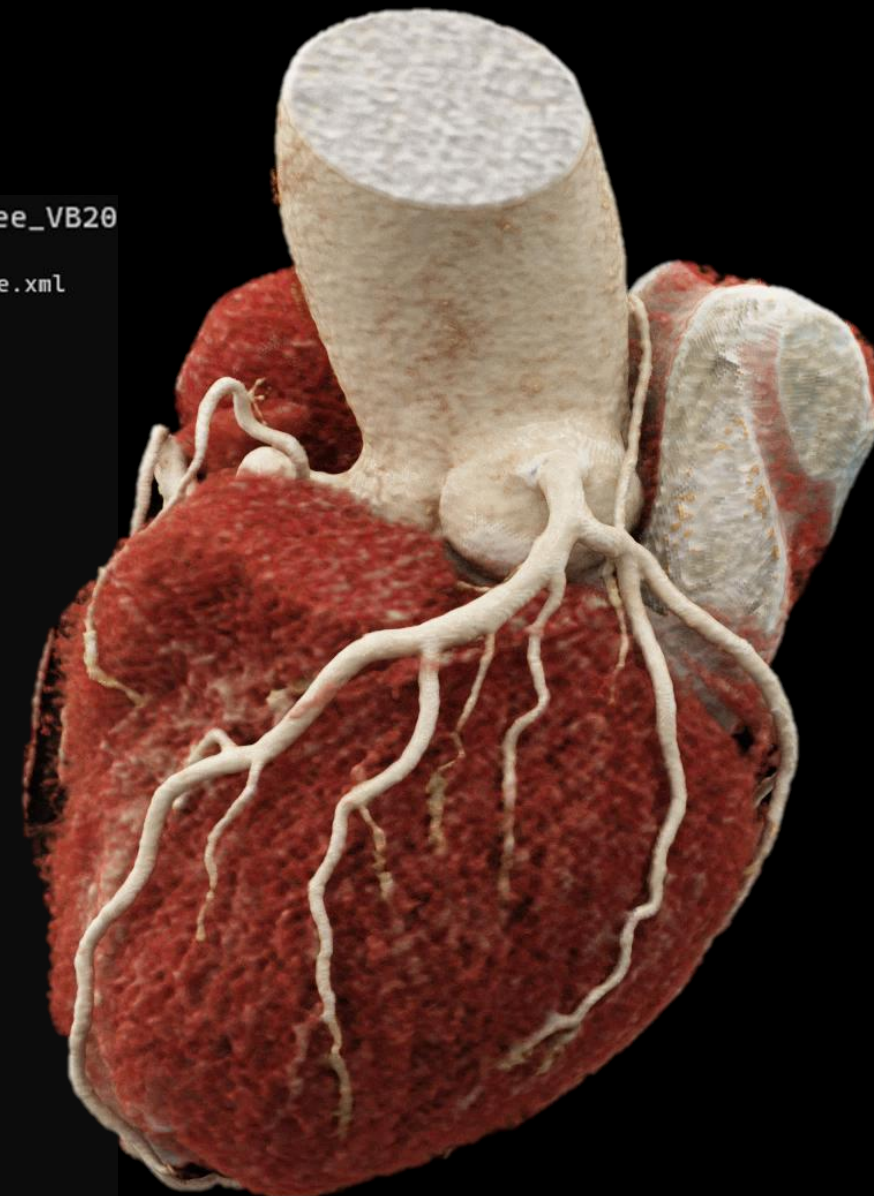
DOWNLOAD PROTOCOL for Alpha.Peak

designed based on VB10SP1,
updated for VB20A and
compatible with all newer versions
using Naeotom Alpha.Peak,
Siemens Healthineers



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```
Herzzentrum-BadKrozingen_DecisionTree_VB20
├── ClinicalDecisionTrees
│   └── ClinicalDecisionTreeImportExportStorage.xml
├── ContrastProtocols
│   └── VirtualFolders.xml
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│       │   ├── 00000000.xml
│       │   ├── 00000000_metadata.xml
│       │   └── 00000000_ProtocolConfig.xml
│       ├── 5DFA2B80-6AF1-4D05-A5A2-64D49B3271FF
│       │   ├── 00000000.xml
│       │   ├── 00000000_metadata.xml
│       │   └── 00000000_ProtocolConfig.xml
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│           ├── 00000000.xml
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│           └── 00000000_ProtocolConfig.xml
└── ScanProtocols
    └── VirtualFolders.xml
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            ├── 00000000_metadata.xml
            └── 00000000_ProtocolConfig.xml
```



Cardiac CT Decision Tree

a few words...

- **Breath-hold commands** must be reconfigured (it is assumed that the customer uses customized commands).
- **Archive and VIA nodes** must be defined and entered.
- **Injector coupling** for the test bolus is lost if the customer has already made a selection and subsequently changes this decision.
- **If a test bolus has already been acquired** and the customer makes the final decision afterwards, a new test bolus will be generated. Therefore, the customer should perform the test bolus acquisition only after the final protocol decision has been made.

