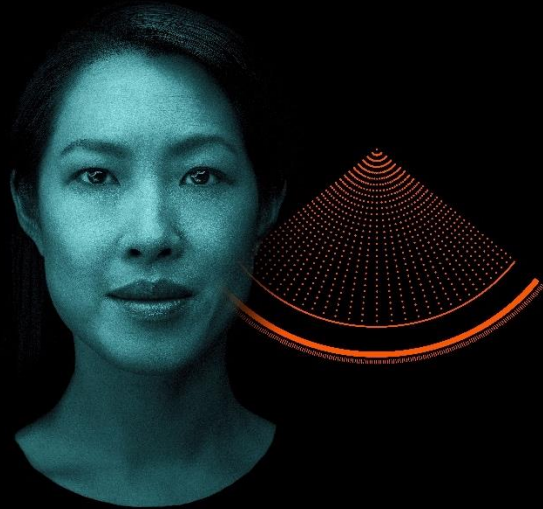
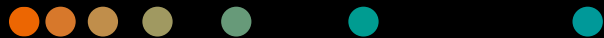


Virtual non-iodine photon-counting CT-angiography for aortic valve calcification scoring

NAEOTOM Alpha Publication Summary



Photon-counting is NAEOTOM



Key findings of the case study



"123 patients (56 male, 67 female; mean age 63.2 ± 11.6 years) were included for final analysis."

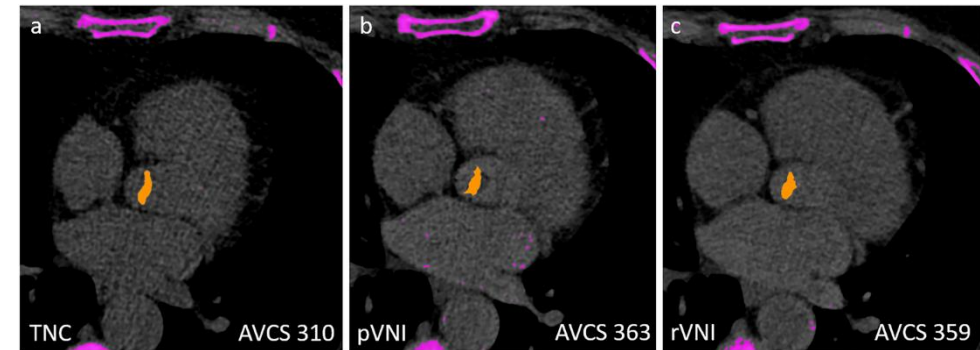


"VNI-based aortic valve calcification scoring (AVCS) offers a reliable, accurate, and radiation-saving alternative to traditional TNC scans, facilitating the evaluation of aortic valve stenosis and progression, especially in patients undergoing TAVI procedures."



"The VNI technique enables the quantification of aortic valve calcifications using contrast-enhanced CT, thus eliminating the need for a separate true non-contrast scan and potentially reducing radiation exposure in patients, particularly those undergoing repeated imaging for TAVI."

*"VNI images derived from cardiac PCD-CT allow for **accurate** aortic valve calcification scoring, showing **excellent correlation** with true non-contrast imaging, and thus providing a potential solution to **omit additional non-contrast scans in clinical practice.**"*



Authors: Feldle, P. et al., Scientific Reports 2024

Institute: University Hospital Würzburg, Germany

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True non-contrast (TNC) CT (a), prospective virtual non-iodine (pVNI) CT (b), and retrospective virtual non-iodine (rVNI) CT (c) in a 62-year old woman demonstrate high concordance of aortic valve calcification score (AVCS) across all three calcium-scoring approaches.

VNI: Virtual non-iodine

AVCS: Aortic valve calcification scoring

TNC: True non-contrast

TAVI: Transcatheter aortic valve implantation

PCD-CT: Photon-counting detector CT

NAEOTOM Alpha is not commercially available in all countries. Its future availability cannot be guaranteed.

The statements by Siemens Healthineers' customers described herein are based on results that were achieved in the customer's unique setting. Because there is no "typical" hospital and many variables exist (e.g., hospital size, samples mix, case mix, level of IT and/or automation adoption) there can be no guarantee that other customers will achieve the same results.