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## P618 - Distribution of Coronary Artery Calcification in a Cardiology Practice Population of more than 13.000 Patients. Do we need to Correct the Thresholds for Pharmacological Prevention ?

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**Introduction:** Despite all efforts in preventive medicine, coronary artery disease (CAD) is still killer nr. 1 in many countries as it is in Germany. For over 20 years we know that every second heart attack occurs suddenly and unexpectedly, based on a previous "hemodynamically non-significant" lesion. Therefore the non-stenosing CAD is related to an increased risk of myocardial infarction and mortality. The noninvasive diagnosis of a non-stenosing CAD can be easily performed by the measurement of the coronary artery calcification (CAC)-score. Recent guidelines recommend pharmacological prevention with statins in pats with a CAC-score  $\geq$  75th percentile. Since the regarding published data bases are usually from the USA and relatively old, we prospectively collected these data in our practice in Germany.

**Methods:** 13.385 primary prevention pats were analyzed, those with known CAD or another cardiovascular disease as well as those with exercise depending symptoms were excluded. CTs were performed with a 16 row scanner prospectively triggered ("step and shoot") at a slice thickness of 2.5 mm.

**Results:** 69% of pats were male, 45% had arterial hypertension, 52% hyperlipidemia, 20% active smokers, 37% previous smokers and 7% diabetics.

	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69
25. perc.	0.0	0.0	0.0	0.0	0.0	3.8	16.4
50. perc.	0.0	0.0	0.3	4.3	25.7	63.7	102.2
75. perc.	0.78	2.4	20.5	65.3	167.9	281.0	440.8
90. perc.	12.2	42.3	130.9	234.4	555.1	815.2	1106.3

## Percentile distribution in men:

Percentile distribution in women:	Percentile of	distribution	in women:
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	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69
25. perc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50. perc.	0.0	0.0	0.0	0.0	0.0	0.0	9.9
75. perc.	0.0	0.0	0.0	1.5	7.4	27.4	85.0
90. perc.	1.2	1.1	14.5	52.7	88.6	166.3	290.3

8657 pats were asymptomatic whereas 4728 had atypical chest symptoms. There was no clinical relevant differences between these groups regarding the CAC-score of left main (5.5 / 5.2), LAD (89.6 / 78.2), RCx (25.3 / 24.0) and RCA (52.6 / 46.5).

**Conclusion:** The limits for the percentile distribution in our population of 13.385 pats are consistently lower than a previous standard data base published 18 years ago in 9728 pats. Differences may be due to methodological and/or regional reasons, may be our population is more aware of a healthy life style. Nevertheless, the guideline-oriented recommendation of a certain CAC-score threshold for statin administration in primary prevention should be made on a regional, up-to-date data base.

https://www.abstractserver.com/dgk2018/ht/abstracts/P618.htm