Clarification of check-up recommendations in adults

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The article about check-up recommendations in adults [1], issued by the Division of Internal Medicine of the University Hospital in Zurich (DIMUSZ) is of great interest. Essentially, this review aims to transmit recommendations of the United States Preventive Service Taskforce (USPSTF) and the Swiss Medical Board (SMB). However, some important issues concerning cardiovascular prevention need clarification.

Screening for coronary artery disease with cardiac computed tomography

The SMB recommends replacing an invasive coronary angiogram with noninvasive contrast-enhanced computed tomography (CCT) within a *diagnostic* setting for coronary artery disease and not within a *screening* setting, as communicated by the DIMUSZ. Within the *screening* setting for occult coronary artery disease, we recommended strongly against coronary calcium scoring or contrast-enhanced CT, even in intermediate risk patients (Taskforce of Atherosclerosis Imaging of the Swiss Atherosclerosis Association, AGLA [2]). It thus appears problematic when arguing for CCT as a screening tool in intermediate-risk patients defined with coronary risk charts, for several reasons discussed elsewhere [3-6]. Such a recommendation is also problematic because there is no curriculum and no quality control for CCT in Swiss Radiology pre- and postgraduate education and there is – to the best of my knowledge – no recommendation to screen asymptomatic individuals with CCT.

Screening coronary risk using AGLA, European Society of Cardiology or Framingham risk functions

What exactly would be the rationale for using the Framingham coronary risk charts as an equivalent to AGLA, which is a PROCAM function multiplied by a calibration factor of 0.7 as discussed by the DIMUSZ? When using a coronary risk equivalent [7] in 1,601 healthy individuals from Switzerland and 2,633 healthy individuals from Germany (mean age 55 ± 7 and 49 ± 7 years, respectively; total carotid plaque area [TPA] ≥ 80 mm^2 prevalence 18% and 18%, respectively), indeed Framingham was the best performing risk assessment tool [8]. Since AGLA recommends AGLA or European Society of Cardiology (ESC) for risk assessment and *not* Framingham, the DIMUSZ should explain why Framingham might be used instead. Further, this suggestion by the DIMUSZ is made under the title of screening for coronary heart disease, which probably should read "for coronary heart disease *risk*".

Screening for cholesterol

It is problematic that the DIMUSZ did not report the recommendations of the SMB to reduce coronary risk by prescribing statins in healthy individuals: according to SMB, statins are *not indicated* in subjects with an ESC coronary risk <7.5% (equivalent to an AGLA risk of 30% according to SMB assumptions). The population effects of such a recommendation are as follows: in our dataset (www.varifo.ch, data on file, abstracts submitted to SGK) of subjects aged 35–65 years, AGLA and ESC risk was calculated in 1,601 healthy Swiss (mean age 55 ± 7 years) and 2,633 healthy German subjects (mean age 49 ± 7). We found that low-density lipoprotein (LDL) lowering is useful in 652 (AGLA definition) and 642 (ESC definition) Swiss subjects and in 1,185 and 1,105 subjects, respectively, in Germany. Using the SMB cutoff, treatment with, for example, statins would be useful in only 25 and 1 Swiss subjects, and in 10 and 0 German subjects. Therefore, screening for high cholesterol is futile when using these SMB recommendations. The problem here is a mistake in the calculation formula of the SMB (refer to the postpublication reviews on the SMB homepage).

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