# Supplementary materials

Infobox 1: CAD

The number of ACS in younger women has significantly increased. S&G differences in changing risk factors, including metabolic diseases, life style and stress may contribute. Coronary angiography is of limited value to establish IHD in middle-aged intermediate or low risk women. Diagnostic modalities for assessment of coronary microvessel disease (CMD) include measurement of coronary blood flow reserve by invasive and non-invasive approaches. Tako tsubo syndrome and acute coronary dissection are underestimated causes of ACS in women. The outcomes after MI, PCI and coronary surgery are worse in women than in men, what may depend on age and comorbidities. Women have poorer quality of life after cardiac surgery than men.

Infobox 2: Heart failure

In western populations heart failure with preserved ejection fraction (HFpEF ) has a greater prevalence in women and HF with reduced ejection fraction (HFrEF) in men. Hypertrophic cardiomyopathy (HCM) and dilated cardiomyopathy (DCM) are more prevalent in men, but tako tsubo cardiomyopathy in women. Remodeling in HFrEF and HFpEF is different in women and men. CRT is less often used in women than in men but offers greater benefit in women. Women with HFrEF are referred to heart transplantation and ventricular assist device implantation in later stages than men. Some important HF drugs have S&G specific profiles of efficacy and adverse events.

Infobox 3: Valvular heart disease

By computer tomography, women have less valve calcification than men for the same severity of aortic stenosis. By echocardiography, indexation to BSA and adjustment for post stenotic pressure recovery is crucial for correct estimation of severity, particularly in women of small body size. Women with aortic stenosis have a more favourable myocardial adaptation, tolerate surgery less well and have greater benefit from TAVI than men.

Women with severe mitral regurgitation are referred later to surgery than men and have worse outcomes. Indexation of ventricular dimensions to body size is of particular importance for correctly identifying the need for surgery in women.

Infobox 4: Pharmacology

S&G differences in pharmacokinetics may be caused by sex-specific oral bioavailability, clearance, volume distribution, absorption, plasma protein binding, urinary excretion and metabolism. Sex differences in drug effects are described for digitalis, antiarrhythmics and anticoagulants. Adverse drug events represent a source of greater health concern in women than in men and their causes need to be investigated further and in more depth.

Infobox 5: Implementation

More precise algorithms for gendered approaches may lead to a more specific and effective use of resources in CV therapy. For this purpose, more evidence based clinical data and more basic research is required. For successful implementation, the support of cardiology societies, active researchers, funding organisations, journal editors, policy makers is needed.