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Recent (regulatory) developments in medicines for cardiovascular indications

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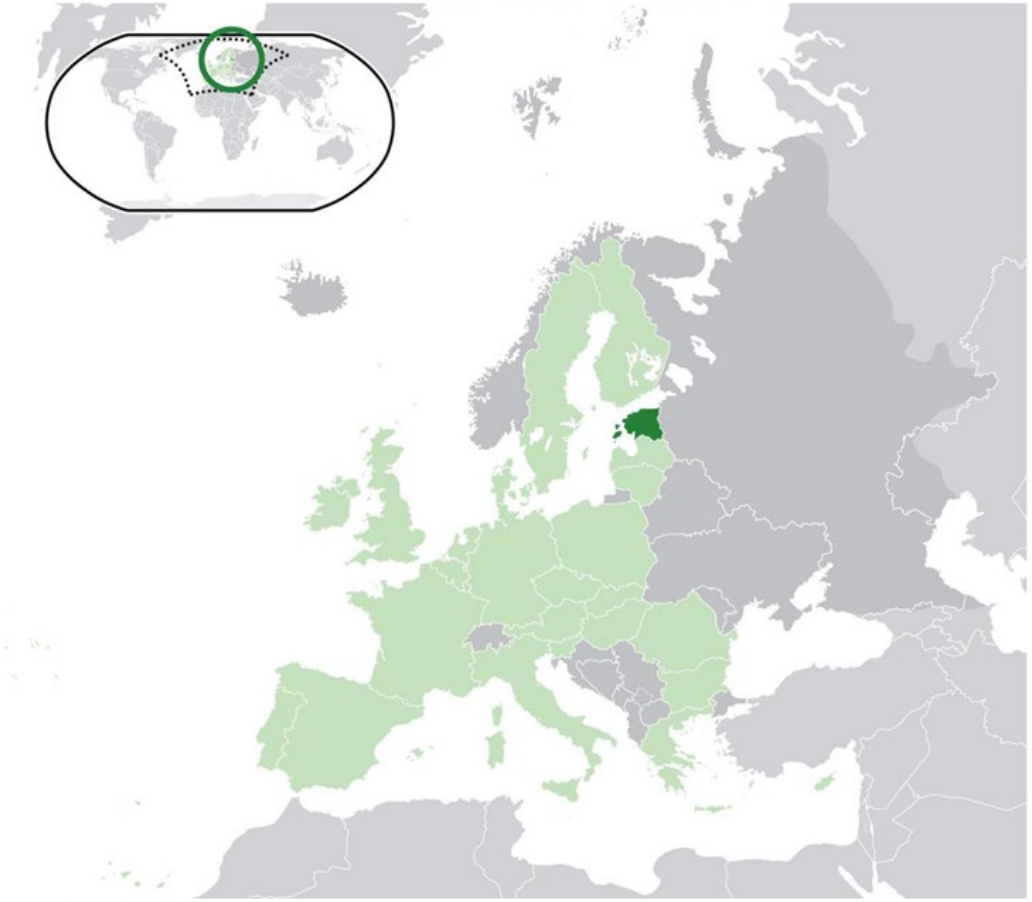
Supporting innovation in cardiovascular medicines and medical devices in the EU

EMA multistakeholder workshop 01-02 July 2026

Disclaimer

- I am a member of the Committee for Medicinal Products for Human Use (CHMP) at the EMA and its Cardiovascular Working Party.
- In the unlikely event you detect any thoughts in this presentation - these are my personal views and do not necessarily represent the views of the EMA or the Estonian Agency of Medicines.



Mise en scène

Benefit–risk must be established for every medicine, on adequate evidence, before marketing — to support decisions and transparent communication[1].

It is assessed from early development and reassessed whenever new information arrives — through the regulatory process, ongoing monitoring, and real-world use.

The balance is revisited periodically post-marketing, as benefits, risks, or the landscape of use evolve.

This demands a lifecycle approach — considering knowledge gaps for products in early development alongside what is known about well-established products with extensive safety data.

Many of these concepts carry over to medical devices. But devices may use a different process to establish their benefit–risk.

[1] Benefit-Risk Balance for Medicinal Products. CIOMS Working Group report. Geneva, Switzerland: Council for International Organizations of Medical Sciences (CIOMS), 2025. https://doi.org/10.56759/gwfz1791

Opportunities (or obligations) of the regulators

- Evidence standards — documents that generalise experience and capture contemporary consensus in a given field
- Scientific advice, product specific or more general (qualification)
- Clinical trial application dialogue
- Presubmission advice on marketing authorisation application
- The Marketing Authorisation Application assessment
- Ongoing knowledge generation and risk management

Trends – general

- More communication — and new expectations with it
  - with users – patients and health care professionals
  - with developers
  - with other societal decision-makers[2]
- More data — and its challenges
  - new types and sources
  - greater quantity
- The almost Shakespearean question this poses for regulators:
  - understanding societal and patient expectations
  - handling and explaining uncertainty in the evidence base for benefits and risks

being enabler, not hindrance —

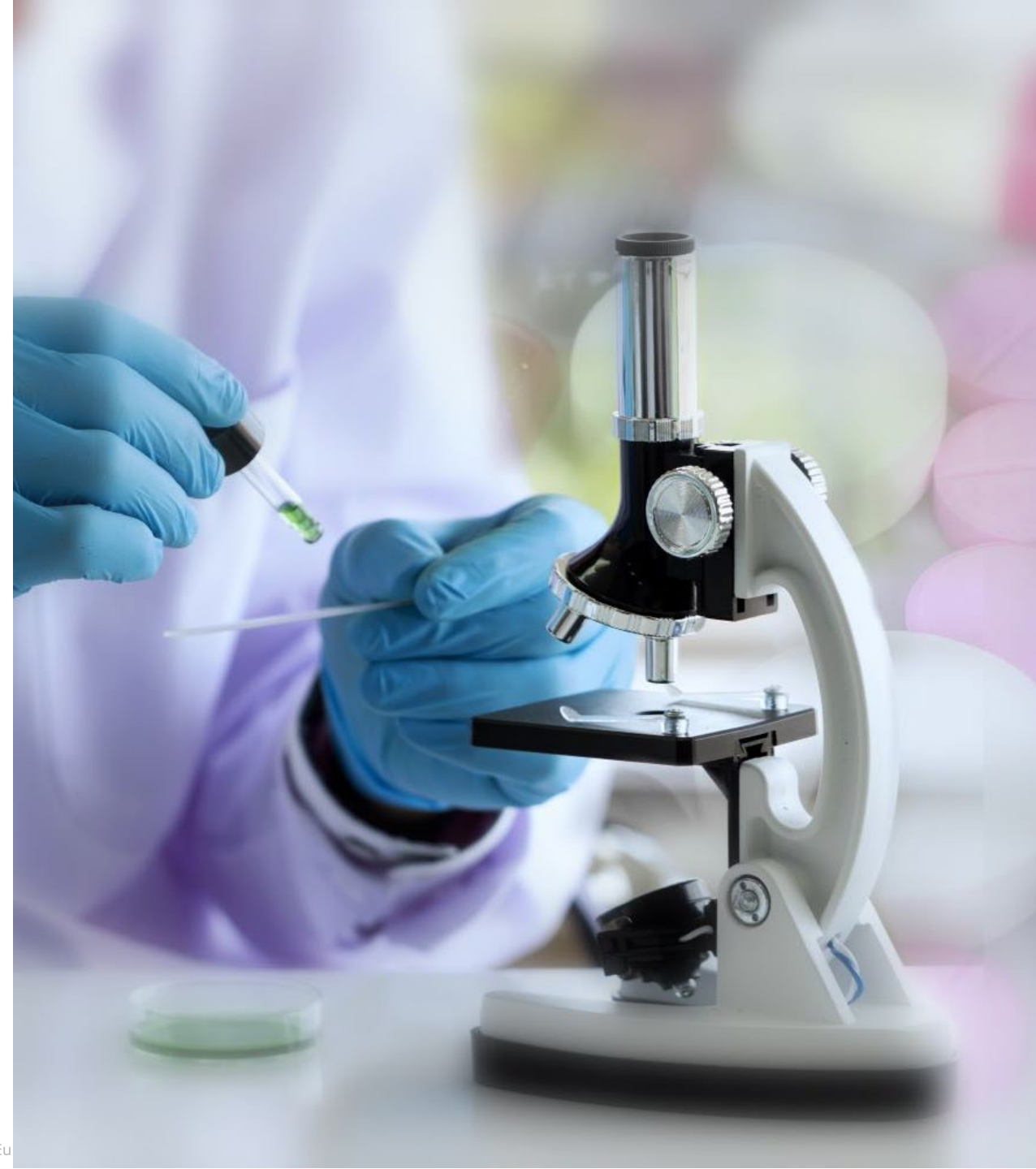
without relaxing the "protection of public health"

[2] Schünemann H, Reinap M, Piggott T et al. The ecosystem of health decision making: from fragmentation to synergy The Lancet Public Health, 7, e378-e390

Ongoing developments

Active pipeline in cardiometabolic field with products targeting:

- CV prevention (including primary)
- Inflammation: IL-6 pathway
- Lipids: Residual risk (Lp (a))
- Hypertension: Treatment-resistant hypertension
- Diabetes: Prevention/delay in onset (preservation of beta-cell function)
- Obesity: Long-term outcomes, obesity with combination biology, oral, less frequent injections
- Chronic kidney disease: eGFR slope



Developments - cardiovascular

- Increasingly small incremental benefits in well-treated populations
- Difficulty in meeting the regulatory requirements in rare CV diseases
- Missing CV-specific guidance for advanced therapy medicinal products
- (Predicted) shift from treatment for general syndromic conditions to targeted therapies of more precise (but less established) phenotypes
- Variations of cardiovascular-renal-(hepatic)-metabolic convergence versus established standards of separate indications
- …

Challenges and opportunities in CV area are diverse

Familiar mechanisms

Known-mechanism lipid lowering — PCSK9 and ACL inhibitors with completed outcomes trials. Endpoints and the evidentiary bar are well established.

New biology

Novel Lp(a)-lowering classes (antisense, siRNA): ~80–95% lowering in published phase 2; mechanism known, CV-outcome confirmation in progress.

Rare & genetic CV disease

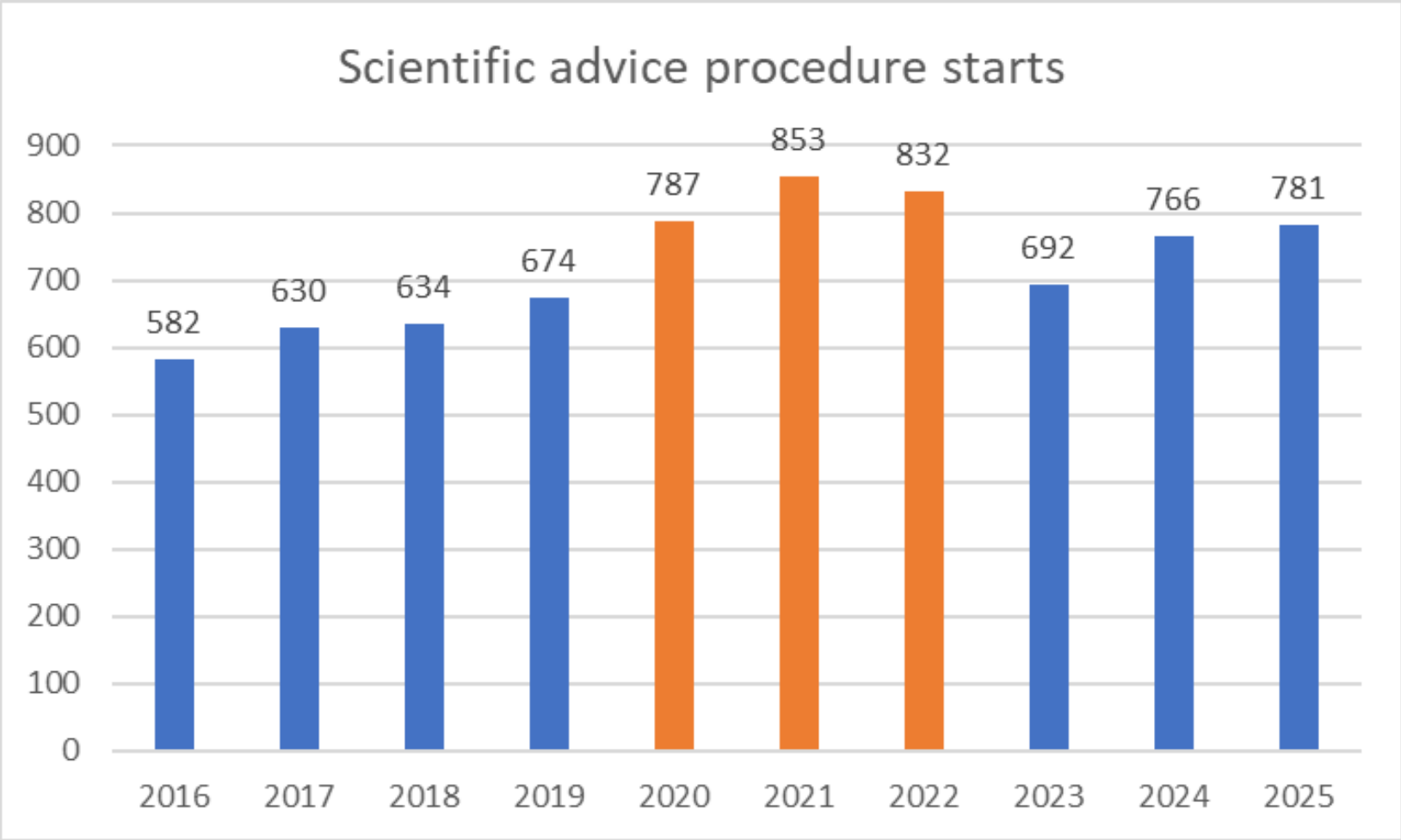
Gene therapies and other ATMPs in small populations — orphan incentives and flexible routes where full datasets are not feasible.

Cardiometabolic convergence

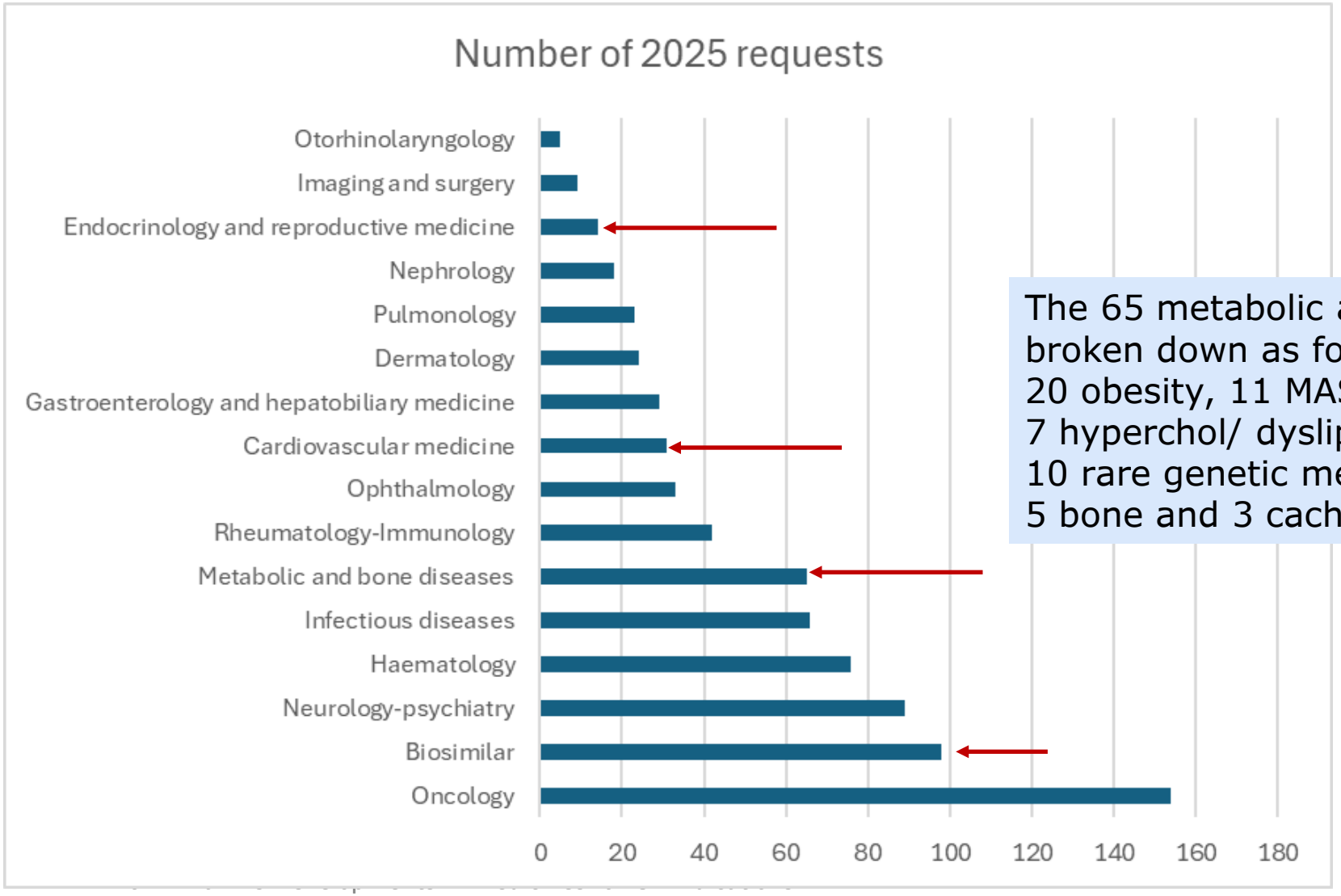
Metabolic classes — SGLT2, incretin-based therapies — carrying large safety databases into HFpEF and CV prevention.

Different questions – different evidence strategies and support tools

Scientific advice (SA) volumes



SA requests per therapeutic field in 2025



The 65 metabolic and bone are broken down as follows:
20 obesity, 11 MASH, 9 diabetes,
7 hyperchol/ dyslipidaemia,
10 rare genetic metabolic,
5 bone and 3 cachexia.

Parallel scientific advice (PSA) with the FDA

- Scientific advice can be requested in parallel to the EMA and the FDA, esp. in development areas of inexistent or divergent guidance or for challenging products
- A request has to be made in parallel to the two Agencies as detailed in the PSA General Principles document
- The procedure involves by default a discussion meeting between applicant, EMA and FDA (70-day procedure) as well as bilateral EMA/FDA interactions in preparation to the discussion meeting
- PSA allows EMA and FDA to discuss and potentially align regulatory requirements across the two regions; however, each Agency maintains in decision-making independence

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Other routes to engage early

Parallel joint consultation with HTA

EMA advice alongside the HTA joint scientific consultation, so evidence plans serve both authorisation and reimbursement.

Advice ahead of clinical trials

the SAWP-CTCG pilot and pre-CTA route: feedback on trial design before the CTA is submitted.

Qualification of novel methodologies

formal qualification of new endpoints, biomarkers, surrogates, PROs and registries for a defined context of use.

Evidence pathways and future public-health strategy (e.g. Safe Hearts Plan)

More than one third of CV deaths were premature and were very likely preventable

More than a decade of healthy life – 5 modifiable risk factors

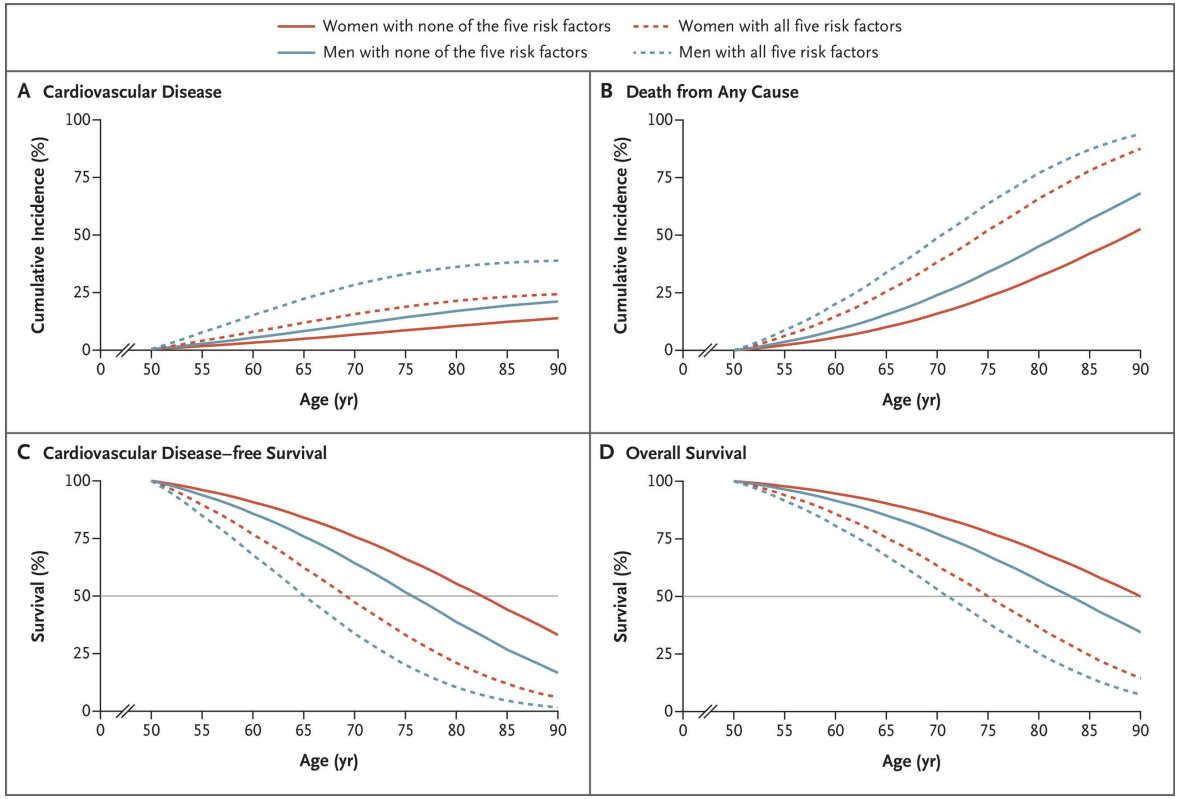
Is there any regulatory role?

Individually (possibly small) benefits in a single risk factor building into larger total lifetime effect in outcomes?

What, how and in which sequence is to be studied

What should the safety evidence be in the long term preventive environment?

How should we communicate the B&R?



Global Cardiovascular Risk C, Magnussen C, Alegre-Diaz J, Al-Nasser LA, Amouyel P, Aviles-Santa L, et al. Global Effect of Cardiovascular Risk Factors on Lifetime Estimates. N Engl J Med. 2025;393(2):125–38

Regulators have a regulated role but …

Our main opportunities to support development are in

- operating predictable effective procedures
- supporting evidence generation according to standards that reliably capture patient benefit and facilitate next decisions
- clearly communicating grounds for opinions (BR, uncertainty)
- providing support in horizon scanning to prepare health systems

Better use in cardiovascular medicine of

- early support to products for unmet needs (e.g. PRIME)
- advice on methods and product specific development (e.g. ITF, SAWP qualification procedures of instruments, methods, design, HTA paralleel, international parallel)
- tailored MA pathways if comprehensive data have not been or cannot be obtained

Concept and methods development in

- capturing and communicating patient benefit
- cardiometabolic convergence

Thank you

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