## Advanced pathological ageing should be represented in the ICD

The rapidly evolving field of longevity medicine focuses on identifying individual ageing trajectories by determining the biological age over time and targeting ageing mechanisms to extend healthspan, the time lived with an optimal performance and health.[1] Currently, the ageing trajectory is determined by reaching an individual's optimal peak performance, followed by an individually variable, but overall physical and mental decline. This decline is often accepted as an inevitability, accompanied by age-related diseases, multimorbidity, frailty, and multisystemic failure.

At different states of the personal life cycle, predominantly reactive medical systems accommodate individuals and capture scarce physical and mental health data, rarely collected during younger adulthood.

Longevity medicine provides an ecosystem for collecting, analysing, and translating longitudinal data, drawing conclusions from the momentary state of health towards predictive and prognostic trajectories, aiming at mitigating and eliminating specific risks of morbidity. The ultimate goal is to bring the individual closer to the state of optimal peak performance during the entire lifespan.[2]

The latest version of the International Classification of Diseases, ICD11, supports installed new dynamics in the nascent field of longevity medicine by classifying ageing as a disease. It allows physicians to target ageing in a comprehensive rather than a less efficacious disease and syndromes-oriented manner.[2–4] Banerjee and colleagues called for excluding old age from ICD-11, suggesting replacement by frailty.[5]

Whether the term old age is the best choice of terminology for a state of multi-malfunction is a semantic, redundant debate. First, ICD codes are carefully considered and revised before being implemented. Secondly, frailty refers to, mostly but not exclusively, age-related disabilities, although old age is not always associated with frailty. Thus, these terms are not mutually exclusive and can co-exist in the ICD, as a part of a hierarchy of causation. The extension code XT9T guarantees coding for measurable age-related processes—eg, inflammageing, mitochondrial dysfunctions, etc.[1] The MG2A code, on the other hand, is representative of the paradigm shift in the definition of an individual's age, from chronological to biological, and will promote the development of therapies to optimise biological age. This paradigm shift in the definition of age, along with technological advances in the ability to control biological age, has led to considerable investment in the field of longevity to develop interventions targeting ageing mechanisms and systemic rejuvenation rather than a single organ or system at a time.

Thus, the current ICD classification should remain to recognise and foster the rapid development of longevity medicines and to allow physicians treat biological age rather than specific diseases, thereby extending the healthspan and lifespan beyond current approaches.

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