

## Aging Classified as a Cause of Disease in ICD-11

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**W**E WISH TO COMMUNICATE with the readership regarding the recent World Health Organization (WHO) International Classification of Diseases (ICD) decision to approve the reclassification of the “Aging-related” extension code XT9T<sup>1</sup> under “Etiology” and “Causality,” from “Temporality.” We contend that this decision, based upon our submissions<sup>2,3</sup> to the ICD-11, represents an important and pivotal intergovernmental recognition regarding the role of aging in disease.

The “Aging-related” classification, XT9T, as introduced into ICD-11 in its initial implementation by the WHO, would have represented another time-in-life code, whereby the code could be appended to diseases that seemingly, by way of population analysis, occur at a particular age. However, as age-related damage and pathology occur across the life course, and cellular senescence and associated pathological phenotypes can occur at any age, a classification in “Etiology” and “Causality” is entirely appropriate. As a “Temporality” code, there would also have been redundancy with geriatric and other time-in-life codes. The approval of our submission proposals<sup>2,3</sup> augments the XT9T code to enable the development of aging-related pathology caused by “Aging-related” etiology.

We submit that the reclassification of the “Aging-related” extension code is an important step to develop a comprehensive and systematic set of disease classifications relating to organismal senescence and senescence at the level of tissues and organs.

As defined in ICD-11, “Etiology” and “Causality” describe the explanatory mechanisms underpinning a disease; as such, the reclassification of XT9T marks the formal recognition of aging as a causal factor in disease. This is a landmark decision at the international level, opening the way to treat aging as a cause that may be prevented. A comprehensive and systematic framework of pathologies may build on such a recognition. The prospect of novel indications based on pathologies caused by aging itself deserves wider communication and a formal note of record.

Despite the recent progress made with the introduction of an “Aging-related” code, we submit that there remain gaps in the classification of aging and age-related diseases, and that it is of crucial importance to ensure that appropriate classifications exist in relation to etiology and causality, temporality, pathogenesis, and pathology.

In addition to our ICD-11 submissions under “Aging-related”<sup>2</sup> and “Causality”<sup>3</sup> we have made further submissions, which we believe build on this initial approval decision. We welcome the scientific and clinical communities to review the recent WHO decisions relating to our submissions toward the further development of disease classifications and related indications, which are now a possibility.

### References

◀AU2

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3. Bentley BL. Causality proposal. In: *ICD-11 Proposals*. 2018. Available at <https://icd.who.int/dev11/proposals/f/en#/http://id.who.int/icd/entity/1698138964>

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