Experts propose new healthcare framework to help ageing populations stay healthier longer

October 31 2019

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An international team of researchers have put forward a position statement, published in *Science*, which lays out a new healthcare

framework to help aging populations stay healthier for longer.

The statement is a 'call to action' to governments, the World Health Organization (WHO) and the scientific and medical community to come together and develop the classifications and staging systems utilizing the framework as the basis for diagnosing and treating age-related diseases, including directly treating all aging tissue and organs.

Age-related diseases without adequate diagnostic criteria and severity staging limits the ability for prevention or treatment and limits the ability to develop new drugs and interventions. Ultimately, this impacts the quality of life for members of society as they age.

Unmet needs of aging populations

Aging populations involve urgent and unmet healthcare and economic needs related to chronic disease and multi-morbidity, which require solutions at the national and international level. People worldwide are living longer.

Today, for the first time in history, most people can expect to live into their sixties and beyond. By 2020, the number of people aged 60 years and older will outnumber children younger than 5 years. By 2050, the world's population aged 60 years and older is expected to total 2 billion, up from 900 million in 2015.

Common conditions in older age include back and neck pain and osteoarthritis, chronic obstructive pulmonary disease, diabetes, sarcopenia and dementia. Additionally, as people age, they are more likely to experience several conditions at the same time, including advanced conditions that may have been building up over decades, which then lead to other diseases and health risks. Dedicated research, new disease terminology, metrics and analytical methods are needed for a

wide range of ageing issues in order to effectively diagnose and treat them.

Designing the framework

Currently the classification and severity staging of age-related diseases is limited because it is inconsistent, incomplete and non-systematic. Some types of disease that can be found in many organs, such as intrinsic organ aging , or organ atrophy or wasting, are classified in one organ but not another.

To help tackle this problem an international group of experts, scientists and medics, led by University of Liverpool Honorary Fellow Dr. Stuart Calimport and supported by University of Liverpool Reader Dr. Joao Pedro de Magalhaes, created a position statement which lays out a framework for properly and comprehensively classifying and staging the severity of aging-related diseases. Importantly the statement includes aging at the tissue and organ level as well as organ atrophy, pathologic remodelling and calcification, and aging-related systemic and metabolic diseases.

Dr. Stuart Calimport, said: "This framework will increase our ability to develop drugs and interventions that target the processes of ageing and that can accumulate with age, which would have unprecedented benefits in relation to the treatment and prevention of serious diseases."

Dr. Joao Pedro de Magalhaes, said: "Ageing is the greatest biomedical challenge of the 21st century. As such, this framework will increase our ability to develop longevity drugs and interventions that target diseases related to the ageing process."

Guiding policy and practice

While aging is classified as a condition within the WHO International Classification of Diseases (ICD-11) in relation to intrinsic skin ageing and photoageing, the framework proposes the classification of aging as conditions in all organs, along with the comprehensive classification of all ageing-related diseases and syndromes.

Co-author of the position statement, Professor Judith Campisi, Ph.D., from The Buck Institute for Research on Ageing, said: "Bringing WHO and other governments into the effort to identify and classify aging as a condition is the only way we are going to be able to address the unmet needs of aging populations around the world.

"This effort provides a framework that would guide policy and practice and enable appropriate interventions and the allocation of resources. This is particularly important in countries that have fewer resources to devote to caring for an aging population."

More information: "To help aging populations, classify organismal senescence" *Science* (2019). science.sciencemag.org/cgi/doi … 1126/science.aay7319

Provided by University of Liverpool