

Editorial: Microbiology in times of aging population

Globally, populations are aging, and Sri Lanka is no exception, experiencing falling birth rates and a relatively high life expectancy. This demographic shift, alongside internal and external migration, challenges the traditional extended family-based care system for older adults, with many now living alone. Despite global interest in this transition's impact on microbiology and infectious diseases, Sri Lanka is yet to address it comprehensively. Currently, the highly successful vaccination program primarily targets young children, overlooking the specific needs of older adults. Moreover, many older individuals in Sri Lanka have non-communicable diseases like diabetes and chronic kidney disease, increasing their susceptibility to infections. However, amidst deficiencies in the healthcare structure, the emphasis remains on sustaining existing systems rather than introducing new programmes. However, if we are to prevent getting caught off-guard, it is high time that the Sri Lankan infectious diseases and microbiology fraternity starts looking into the unique needs of infectious diseases in older adults. In this background, what changes would microbiology services be ready to face, locally?

Aging is associated with a unique set of physiological changes, all of which have an impact on infectious diseases, either directly or indirectly. Directly, immunosenescence puts older adults at a higher risk of getting infectious diseases or complications of those. Other physiological and pathological changes, such as slowing down, loss of balance, falls, dementia, and even simple issues such as reduction in flexibility put older adults at a higher risk of getting infections. Prevention still remains the number one priority for infections in older adults. Thus, immunologists and epidemiologists along with other stakeholders should consider introducing vaccines or boosters that older adults would require and commence their introduction. In addition to prevention through vaccination, strengthening basic hygienic facilities at the community level is also important.

Presentation of older adults with infectious diseases to health care may happen with atypical or unusual signs and symptoms. There is a need to study this in the local context and to educate primary care physicians. When someone presents with unusual signs and symptoms, diagnostics play a vital role in establishing the disease as well as the aetiology. Both the treating physicians and laboratories need to be geared for this. Physicians may need to consider requesting microbiological investigations in patients presenting with unusual symptoms, while laboratories need to accept and test these samples. In a situation where the system is already overburdened, this is not an easy task. Therefore, this too needs careful evaluation of treatment and diagnostic pathways and algorithms. Caregivers, extended family or the older adults themselves also need to be educated to seek treatment promptly for identified symptoms to prevent sepsis.

Collaboration between microbiologists, geriatric specialists, and public health professionals is key to strengthening the healthcare system's response to the challenges posed by an aging population. The emerging field of geriatrics in Sri Lanka presents an opportunity for microbiologists to collaborate closely with this specialty, ensuring a holistic approach to managing infectious diseases in older adults.

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