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Post-tuberculosis lung disease patients benefit from vaccinations as other respiratory conditions

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Dear Editor,

A joint statement of the Italian respiratory, infectious diseases and public health societies has been recently published on the best vaccination strategies in respiratory disease [1].

This important contribution will significantly help patients affected by chronic respiratory diseases, as well as by other chronic conditions of the cardiovascular system, liver, kidney, immune system, etc. [1]. These conditions including chronic obstructive pulmonary disease (COPD), asthma, bronchiectasis and interstitial lung diseases are mentioned as part of the core Chronic Respiratory Diseases [1].

We find relevant to add such an important condition as Post Tuberculosis Lung Disease (PTLD) to the list of risk groups for vaccination. PTLD is well recognised as chronic respiratory condition, and integrated approach to management of TB and lung health is promoted by the World Health Organization [2-6].

Recent national guidelines from major countries (e.g. Brazil) emphasized the importance of managing PTLD including a tailored vaccination plan [3], and the Latin American Thoracic Association (ALAT) has developed a regional guideline to support national adoption of the same principles in the whole Latin America [4].

The fact that about half of the total TB-related suffering was attributed to PTLD (precisely 47% of the 122 million disability-adjusted life years estimated in 2019) has attracted much attention on this topic [7-10].

Residual lung impairment after the completion of standard anti-TB treatment is prevalent (affecting up to 50-70% of patients completing anti-TB treatment) and predisposes to multiple lung diseases (e.g. COPD, chronic pulmonary aspergillosis, bronchiectasis, and COVID-19) [11-15]. The risks of cancers and cardiovascular diseases also increase in post-TB patients [6-

9]. The post-TB morbidities adversely impact patients' quality of life and lead to a four-fold higher mortality rate compared to the general population [9-15].

Vaccination is an important approach to prevent and mitigate the evolution of lung damage, caused by TB, as well as rehabilitation of patients with PTLD is essential to allow them to return to an active and productive life [16,17].

Recent evidence highlights the urgent need for a comprehensive vaccination plan in PTLD patients [2,18]. In addition to vaccines against influenza, pneumococcal disease, and COVID-19, PTLD patients should receive vaccines recommended for the general population or specific age groups, including tetanus, diphtheria, pertussis, measles, and shingles [2,18]. These vaccinations are essential to reduce the burden of preventable infections and improve long-term outcomes in this vulnerable population. Integrating vaccination into PTLD care is not optional — it is essential.

We therefore propose the possibility to capture this element if or when the similar statements are published or updated.

We perfectly know that in the context of Italy, as well as that of other high-income countries, PTLD is not a major issue. However, in all countries where TB is still a clinical and public health priority and even in the low incidence countries of Europe, this addition will be of paramount importance.

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