Reason for existence in the field of laboratory medicine.

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Introduction

The importance of laboratory medicine in contemporary healthcare systems is on the rise since it is crucial to the majority of treatment pathways, improves harmonisation, optimises patient flow, and limits wasteful testing. However, recent changes in the character of laboratory services, supported by innovation and the introduction of more sophisticated tests in developing diagnostic sectors, more advanced diagnostics together with other "internal" and "external" forces, will promote a paradigmatic transformation of contemporary scenarios. Since the future of laboratory workers is yet unknown, it seems certain that their roles and public perceptions will change [1].

However, *in-vitro* diagnostic tests are now employed at almost every stage of managed care, laboratory medicine is becoming more and more important in contemporary healthcare systems. In reality, laboratory tests are required for: predicting disease susceptibility; preventing diseases through the identification of risk factors; diagnosing a variety of pathological conditions, frequently at an early stage; prognosticating; monitoring disease progression; and personalising treatments for the best results. In recent decades, technical and organisational innovation in laboratory testing has moved concurrently with greater understanding of the pathophysiology of human diseases and changes in healthcare delivery, supporting a paradigm shift from diagnosing and monitoring advanced diseases to an equally pervasive predictive and preventative strategy. Only with the assistance of laboratory testing can the majority of organ illnesses be diagnosed. The early stages of many of these illnesses are asymptomatic, making clinical detection unlikely [2].

Modern medicine's mainstay of laboratory diagnostics has undergone enormous changes in recent years, which have significantly altered the traditional geography of their environment and operations. In example, laboratory investigations have advanced from straightforward tests used to make clinical diagnoses to more complex and pathognomonic studies, which can be helpful for stratifying the risk of particular diseases, for reaching earlier diagnoses, and for advancing the field of customised medicine. Consistently, the way laboratories are organised has changed from the simple analytical methods used by doctors in tiny rooms near or inside the wards to large, automated, sophisticated, and consolidated facilities, frequently located away from hospitals and patient care, organised as individual units or "silos," and managed according to performance metrics resembling industrial models rather than being centred on clinical pathways [3].

The emphasis on activity volume, delivery costs, throughput, and analytical quality has helped to create a false perception of laboratory services, regarded as simple commodities, based on scale economy models that prioritise commercial goals above medical ones. This paradigm was heavily impacted by the type of "conventional" laboratory tests carried out up until the previous ten years, which generally involved techniques for measuring analysts that were known to practising physicians and whose values could be reliably interpreted. In general, health care systems are transitioning from a model focused on payment based on the volume of services to a fee-for-service setting with bundled payments, focused on reimbursement of thorough diagnostic and therapeutic pathways in inpatient settings according to the Diagnosis-Related Group (DRG) system. Even for outpatients, the scenario is changing, moving away from a paradigm based on volumes and cost per test and toward a system more centred on the efficacy and importance of laboratory data [4].

Laboratory medicine appears to have a promising future. Innovative biomarkers and developments in molecular diagnostics for risk factor identification, early diagnosis, treatment planning, and treatment personalization have significantly contributed to the revolution in modern medicine and will continue to alter and enhance the standard of care for both the individual patient and the general public. However, the future of laboratory workers is still unclear, and it is clear that the position and job [5].

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