

*Editorial*

## A General View on Precision Medicine

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### EDITORIAL

Precision medicine is a medical system that recommends assembling healthcare, which is The prevention, diagnosis, treatment, amelioration, or cure of disease, illness, injury, and other physical and mental disabilities in individuals is referred to as health care. Specialists in the medical and allied health fields provide health treatment. Health professionals include doctors, dentists, pharmacists, pediatricians, nurses, optometrists, audiologists, psychologists, occupational therapists, physical therapists, athletic trainers, and others. It includes work in primary care, secondary care, and tertiary care, as well as public health; by tailoring medical decisions, treatments, behaviours, or goods to a subgroup of patients rather than a one-drug-fits-all approach. Diagnostic testing is frequently used in precision medicine to determine appropriate and optimal therapies based on a patient's genetic content or other molecular or cellular studies. Molecular diagnostics, imaging, and analytics are some of the tools used in precision medicine, where molecular diagnostics is a group of methods that uses molecular biology to assess biological markers in the genome and proteome, as well as how cells express their genes as proteins. The technique is used in medical to diagnose and monitor disease, detect risk, and determine which medications will work best for specific patients, and in agricultural biosecurity to monitor crop and livestock disease, estimate risk, and determine what quarantine measures are necessary. Molecular diagnostics offers the possibility of personalised medication by analysing the characteristics of the patient and their ailment. Precision medicine usually involves using panomic analysis and systems biology to determine the aetiology of a patient's condition at the molecular level, followed by the use of targeted medicines to address that patient's disease process.

The patient's reaction is then continuously monitored, frequently using surrogate variables like tumour load, and the treatment is fine-tuned to the patient's response. The branch of precision medicine that deals with cancer is called "precision oncology". Precision psychiatry is a branch of precision medicine that deals with psychiatric illnesses and mental health.

The exposome, which affects disease processes through the interactome inside the tissue microenvironment, differs from person to person, as does inter-personal variability in molecular pathology. The unique disease principle arose as the theoretical foundation of precision medicine, including the ubiquitous phenomenon of diagnosis and prognosis and molecular basis.

The availability of molecular profile assays and individual germline DNA sequencing is critical to providing precision medicine to patients in routine clinical settings. While precision medicine currently individualises treatment mostly through genomic testing such as Oncotype DX, a number of interesting technology modalities are being developed, ranging from spectrometry-based approaches to real-time imaging of drug effects in the body. Many various parts of precision medicine, such as the proteome and microbiome, are investigated in research settings, but not all available inputs are employed in ordinary practise. Precision medicine's ability to be practised also depends on the information bases available to aid physicians in taking action based on test results. Early studies using omics-based precision medicine to diagnose cohorts of people with undiagnosed disease found a diagnosis rate of 35%, with 1 in 5 of those newly diagnosed receiving therapy recommendations. On the therapy side, Private message may include the use of personalised medical items such as pharmacy compounded medication combinations or customised medical devices. It can also save healthcare costs by preventing dangerous drug interactions, increasing overall efficiency when prescribing pharmaceuticals, and preventing harmful drug interactions.

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