



Transgender Laboratory Medicine

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Transgender is a comprehensive term, referring to all individuals whose gender identity is not aligned with their sex recorded at birth. It is important to distinguish between the terms sex and gender. Sex is a biological component, defined by genetics and reflected physiologically by gonads, external genitalia, and sex hormones. The terms male and female are used when describing sex. Gender, on the other hand, refers to the internal sense of being male or female, resulting from a combination of social, environmental, cultural, and behavioural factors and choices.^{1,2} The use of appropriate, respectful, non-pathologising language has gained importance over the past decade, and currently accepted terminology and definitions are described in Table 1.³

Table 1. Currently accepted terminology and definitions related to sex and gender

Terminology	Definition
Sex assigned at birth	A person's status as male, female, or intersex, based on external genitalia and physical characteristics.
Gender Identity	Internal, deeply felt, intrinsic sense of gender.
Non-binary	People whose gender identities fall outside the gender binary of male or female. They may sometimes identify as male, female, partially male, partially female, a combination of both, or neither.
Cisgender	People whose current gender identity corresponds to the sex they were assigned at birth.
Gender Affirmation	Being recognised or affirmed in a person's gender identity, including medical gender-affirmation by means of hormone therapy and/or surgical intervention along with other gender-affirming care.
Gender Incongruence	A diagnostic term used to describe a person's marked and persistent experience of incompatibility between their gender identity and the gender expected of them based on their birth-assigned sex.
Gender Dysphoria	A state of distress or discomfort that may be experienced if a person's gender identity differs from that which is physically or socially attributed to their sex assigned at birth. Not all transgender and gender diverse people experience gender dysphoria.

Transgender Healthcare

The realm of transgender healthcare is a rapidly evolving multidisciplinary field. There has been an unprecedented increase in the number and visibility of transgender and gender diverse people seeking gender affirming treatment and support.³ The World Professional Association for Transgender Health (WPATH) is an international association that promotes evidence-based care, education, and research in transgender health and have published the 8th edition of the Standards of Care (SOC-8) in 2022. The goal of the SOC-8 is to equip healthcare providers with clinical guidance to assist transgender and gender diverse people with appropriate and optimal healthcare. The SOC-8 guideline is freely available at <https://www.wpath.org/soc8> and includes chapters on education, the assessment of adults, adolescents, and children, hormone therapy, and surgical options, to name but a few.³ Measures that can easily be implemented in the clinical setting that will have a positive impact on transgender healthcare include the appropriate use of pronouns when engaging with the patient as well as recording on patient records, and guidance during physical examinations. Furthermore, formal training of clinicians, nursing staff, and other medical professionals would further aid in equitable treatment and healthcare for the transgender community.

The Role of the Laboratory in Transgender Healthcare

Clinical laboratories play a significant role in improving healthcare to the transgender community by using both sex and gender identity to guide hormone therapy and to monitor physiology. Reference intervals play a crucial role in clinical decision-making and most results are interpreted in relation to these intervals.⁴ Various transgender-specific reference interval studies have been established over the past five years and there has been an expanding interest in evaluating changes that occur in transgender individuals as a result of hormone therapy. Several studies observed biochemical changes that occur in transgender men and women after hormone therapy initiation.⁵⁻⁸

The first publication on transgender-specific reference intervals focussed on haematological blood parameters⁸, followed by biochemical and endocrinological reference interval studies in transgender men and women^{9,10}, including a local South African study.¹¹ A recent 2023 publication on changes in laboratory results in transgender individuals on hormone therapy stated that for practical purposes, reference intervals of the affirmed gender may be used from one year onwards after hormone therapy initiation.¹²

Other important roles of the laboratory include improving physiological understanding, electronic medical system recognition, and overall awareness of and education regarding the transgender community. Lancet Laboratories has implemented request forms tailored to address the healthcare needs of transgender and non-binary individuals, with a specific focus on hormone therapy. These forms are made accessible upon request.

Lancet Laboratories stands as a steadfast ally of the transgender community and underscores our commitment to fostering a supportive and inclusive healthcare environment. We encourage active clinical engagement between our dedicated healthcare professionals and the clinicians who provide comprehensive care to transgender individuals in South Africa. Our unwavering dedication to advancing equitable and accessible healthcare for all remains at the forefront of our mission. Together, through collaboration, understanding, and the pursuit of excellence, we aspire to contribute positively to the health and well-being of the transgender community, and reaffirm our pledge to a future where quality healthcare is truly for everyone.

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