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LETTER

Correspondence: Role of clinical laboratories in reporting results of transgender individuals on hormonal therapy by Phiri-Ramongane and Khine

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Phiri-Ramongane and Khine highlight the need for validation of biochemical reference intervals in transgender individuals.[1] This is an interesting debate and much has recently been written about shortcomings of laboratory information systems and electronic medical records.[2,3] Furthermore, the use of cisgender reference intervals for the transgender community has come under the spotlight over the past few years.[3–5] In fact, recent studies have determined reference intervals in the transgender population.[3,6] A study on haematological reference intervals in transgender individuals concluded that haematology parameters in transgender men and transgender women receiving stable hormone therapy should be compared with cisgender male and cisgender females reference ranges, respectively.[3] Other studies that determined endocrine reference intervals in transgender men and transgender women state that clinicians and laboratories should use appropriate reference intervals to interpret results.[6,7] In fact we recently were, to our knowledge, the first in Africa to determine biochemical reference intervals in our local transgender population.[8] We found clinically significant differences for sodium, alkaline phosphatase (ALP), gamma-glutamyl transferase and testosterone in transgender men, while transgender women had clinically significant differences in creatinine, albumin, aspartate transaminase, ALP and oestradiol when compared with their cisgender counterparts.[8]

There are, however, some terminology and statements that need to be addressed. Terminology in this field is changing fast, with emphasis on language that is respectful, non-pathologizing and consistent with human rights standards.[9,10] Terms such as 'male to female' and 'female to male' are considered outdated.[9,10] The term 'sex assigned at birth' is preferred to 'biological gender' and 'gender affirmation' preferred to 'gender transformation'.[9,10]

Although many terms have been used in the past, the term 'reference range' is not recommended anymore and the term 'reference interval' is preferred. As Haeckel *et al*. pointed out, 'range' is restricted to the difference between upper and lower limits of an interval.[11] They use the example for serum sodium, where the reference interval is 135–145 mmol/l and the reference range is 10 mmol/l.[11]

Another concern is the recommendation by Phiri-Ramongane and Khine that prostate specific antigen (PSA) be determined in transgender females based on a reference by Deebel *et al*.[12] This manuscript describes the case of a 65-year-old transgender woman who presents with elevated PSA and prostate cancer. They do, however, describe how rare prostate cancer is in the transgender population. A study by Nie *et al*., who followed up 2 281 transgender women for a median of 14 years, identified an extremely low risk due to the protective effect of androgen deprivation in this population.[13] In fact, recent publications and guidelines recommend against the use of screening PSA in the transgender population.[14–16]

The review by Phiri-Ramongane and Khine makes a valuable contribution and further studies on reference intervals in this population are definitely warranted, especially in Africa. However, the use of appropriate terminology and recent guidelines is of utmost importance, especially in this emerging field of endocrinology and laboratory medicine.[9, 10]

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