ASISA Association for Savings & Investment South Africa

GUIDELINE: COTININE CUTOFF FOR THE DETERMINATION OF SMOKER STATUS

First published: 27 October 2026

Last updated:

1. PURPOSE

1.1. The purpose of this Guideline: Cotinine Cutoff for the Determination of Smoker Status ("**Guideline**") is to provide for a consistent and evidenced-based approach for determining smoker status through cotinine testing for insurance underwriting purposes.

1.2. This Guideline defines the cotinine cutoff levels that is recommended to be applied when assessing an individual's tobacco and nicotine exposure status.

1.3. This Guideline is being shared with ASISA members and the public at large for their consideration and voluntary implementation and is non-binding on ASISA members.

2. BACKGROUND

2.1. Historically, many insurers have applied a cotinine cutoff of **50 ng/mL** to distinguish smokers from non-smokers. However, advances in laboratory technology and the adoption of newer assay platforms have resulted in many pathology laboratories reducing the reporting threshold to **25 ng/mL**, in line with manufacturer recommendations and current scientific evidence.

2.2. To assess the appropriateness of this lower threshold for insurance, ASISA's Medical and Underwriting Standing Committee ("**MUSC**") reviewed the available evidence, consulted with major South African pathology laboratories, and obtained independent expert opinions from international respiratory and medical insurance experts.

2.3. The review concluded that:

2.3.1. Cotinine is a highly specific biomarker of nicotine exposure.

2.3.2. Cotinine levels in true non-smokers are expected to be very low.

2.3.3. According to International research, a cotinine level exceeding **25 ng/ml** indicates a significant nicotine exposure.

2.3.4. There is no compelling medical justification for retaining a higher cutoff of **50**

ng/mL when determining smoker status for insurance risk assessment purposes.

3. MUSC RECOMMENDATION

3.1. Based on the available evidence, MUSC recommends that insurers align with current laboratory and clinical standards by applying a cotinine cutoff of **>25 ng/mL** for the determination of smoker status. Accordingly, test results exceeding **25 ng/mL** should be interpreted as indicative of smoker status, unless otherwise supported by compelling clinical or laboratory evidence.

3.2. This recommendation applies to:

3.2.1. Laboratory-based cotinine testing (serum and urine); and

3.2.2. Point-of-care cotinine testing kits (including saliva-based and serum assays).

4. GUIDING PRINCIPLE

The consistent adoption of a 25 ng/mL cutoff threshold for the determination of smoker status will promote consistency across testing methodologies, align insurance practice with current scientific and laboratory standards and support fair and objective assessment of nicotine exposure. It will also reduce the potential for divergent outcomes between insurers. Furthermore, a consistent industry approach helps minimise customer confusion and disputes which may arise if different cotinine cut off levels are applied by life insurers for the determination of smoker status.

DOCUMENT HISTORY

Date	Publication / Amendment

RESPONSIBLE COMMITTEES AND SENIOR POLICY ADVISOR

Responsible Board Committee	ASISA Life and Risk Board Committee
Responsible Standing Committee	Medical and Underwriting Standing Committee
Responsible SPA	ASISA Point Person for the Life and Risk Board Committee